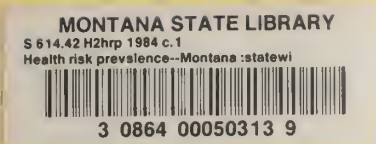


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HEALTH RISK PREVALENCE - MONTANA
STATEWIDE ANALYSIS OF SELECTED HEALTH RISK FACTORS

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EXECUTIVE SUMMARY

A telephone survey of 609 Montanans was conducted from January through July of 1984 to determine the prevalence of behavioral risk factors among adult Montanans. The following sections present a summary of the survey results; however, more specific information is discussed in the text of this report.

Seat Belt Usage

In the 1982 survey, it was found that 60 percent of Montanans seldom or never use seat belts while riding in a vehicle. In this year's survey, 50 percent reported that they seldom or never use seat belts, a 10 percent improvement from 1982. Eighteen percent indicated they always wear a seat belt when riding in a vehicle, 10 percent nearly always wear a seat belt, and 20 percent reported that they sometimes wear a seat belt. Table 3 presents the demographic characteristics concerning seat belt usage.

Hypertension

Approximately 22 percent of Montanans reported that they have been told that they have high blood pressure. Of those persons who indicated they are hypertensive, 66.3 percent said they had been told more than once and 33.7 percent reported being told only once of their condition. Approximately 65 percent have been prescribed medicine for their high blood pressure, with 98.6 percent currently taking the prescription drug. Other

actions reported being taken to control their high blood pressure were: low salt diet (71.5 percent), watching weight (73.7 percent), decreasing/stopping smoking (23.2 percent), and exercise program (41.7 percent). Approximately 60 percent reported that they have their blood pressure condition under control, 26.7 percent indicated their hypertensive condition had returned to normal, and 10.5 percent reported their blood pressure was still high. When considering all Montanans, and not just those who reported hypertension, 2.3 percent have an uncontrolled hypertension problem, a rate down somewhat from the reported 2.9 percent rate in 1982. Tables 4 through 8 contain data on hypertension.

Exercise

Nearly two-thirds of Montanans exercise in some fashion. Walking was the most common type of exercise, with 39.6 percent reporting that walking was their primary exercise and an additional 15.4 percent indicating walking was their secondary form of exercise. One to five miles was the predominant distance that respondents walk, swim, or run. Forty-one percent indicated that they spend more than 60 minutes participating in their primary type of exercise, while 25 percent spend 30 to 60 minutes and 27 percent spend less than 30 minutes. Tables 9 through 12 present data on the type of exercise in which Montanans participated.

Diet

The majority (53 percent) of Montanans rarely or never add salt to their food at the table, whereas 31 percent add salt most of the time.

When the respondents were asked how many days per week they ate red meat, the following responses were recorded: one day, 6.0 percent; two days, 8.8 percent; three days, 14.8 percent; four days, 15.0 percent; five days, 11.5 percent; six days 5.8 percent; and seven days, 36.6 percent.

Most Montanans weigh between 120 and 180 pounds, with more females than males weighing in the lower extreme (120 to 150 pounds). Forty-eight percent indicated they were between 5 feet 6 inches and 6 feet in height, with more males than females in this height category. Twenty percent reported they were currently on a diet to lose weight. The majority (61.2 percent) said they had lost between one and ten pounds and 8.0 percent reported that they had lost between 25 and 80 pounds. Tables 13 and 14 contain information on respondents' eating habits and Tables 15 through 18 concern Montanans' height, weight, and loss of weight.

Cigarette Smoking

Cigarette smoking is a leading cause of preventable death; however, 29.3 percent of Montanans currently smoke cigarettes. This number is slightly higher than the 1982 survey of 26.5 percent being cigarette smokers. Nearly 79 percent smoke less than one pack a day, while 19 percent smoke one to two packs and 2 percent smoke more than two packs a day. Approximately one in three smokers have stopped smoking for a week during the past year. Tables 19 through 21 present data on the smoking habits of Montanans.

Alcohol Consumption

Sixty-nine percent indicated that they had drunk an alcoholic beverage (beer, wine, or liquor) during the past month. Thirty percent reported they drank beer one to five times per week and 57 percent said that they drink, on the average, one to two beers on each occasion. Twelve percent of the wine-drinking respondents consume a glass of wine one to five times per week and 83 percent indicated that they average one to two glasses of wine on each occasion. Similiar to the wine drinkers, 12 percent reported that during the past month they drank liquor one to five times per week and 62 percent indicated that they average one to two drinks each time.

The rate of acute heavy drinking (five or more drinks on one occasion during the past month) has remained stable at 26 percent of the population since the 1982 survey. Eleven percent of the people who had drunk alcoholic beverages during the past month reported that they had driven when they had consumed too much alcohol. Tables 22 through 30 present data collected concerning the alcohol drinking habits of Montanans.

Alcohol-Impaired Driving

A section of the CDC survey contained questions provided by the Montana Department of Justice, Highway Traffic Safety Division.

Ninety-eight percent of Montanans agreed that alcohol-impaired driving is a serious problem and something should be done about it. Nearly 71 percent thought they could avoid driving after having too much to drink, and 95 percent believed they should take positive action to prevent "drunk"

individuals from driving. Strict law enforcement for driving while intoxicated gained support from the majority (94.3 percent); however, nearly half do not consider law enforcement for drunk driving adequate in Montana.

The survey participants were asked what percent they thought was the level of alcohol concentration in the blood stream to be legally classified as driving while intoxicated. The answers provided by the respondents ranged from 0.1 percent to 60.0 percent, with 16 percent answering correctly (0.1 percent). Approximately 10 percent thought they would need to consume five to six drinks in one hour to be classified as driving while intoxicated, while 32 percent indicated they must drink three to four drinks and 25 percent believed one to two drinks would classify them as a "drunk" driver. Most of the respondents (33 percent) thought all types of alcohol have the same intoxicating effect; however, 21.5 percent regarded a shot of whiskey as making them feel most intoxicated, 4.2 percent indicated a 12 ounce beer, and 2.2 percent believed a 5 ounce glass of wine was most intoxicating to them. Tables 31 through 38 present data on Montanans' perceptions of alcohol-impaired driving.

I. INTRODUCTION

Habits and behavior patterns strongly influence the overall health, well-being, and longevity of most people. Some acute and chronic illnesses are directly associated with life-style and can be prevented by modifying certain behaviors. By preventing illness through reduction of behavioral risk factors¹ in daily life, people can expect to live longer, feel better, and in turn, health care costs can be reduced.

In order to effectively facilitate behavioral and environmental changes conducive to good health, it is essential to characterize and measure the status of Montanan's health and the prevalence of behavioral risk factors within the population. The Montana Department of Health and Environmental Sciences (DHES), with funding from the National Centers for Disease Control (CDC), has endeavored to determine the status of health and behavioral risk factors of adult Montanans through a statewide telephone survey.² In 1982, the CDC funded eight states and the District of Columbia to conduct prevalence surveys of major behavioral risk factors among their adult populations. The number of states participating in this year's survey effort has grown to 20 states.

The DHES and the CDC envision that the results of the 1984 survey will serve as a basis to educate the general population concerning the health hazards of smoking, alcohol abuse, and hypertension as well as other

¹ Behaviors that are associated with an increased hazard of developing avoidable illness and/or premature death.

² ECO Northwest, Ltd. of Helena, Montana was contracted by DHES to conduct the behavioral risk factor survey, to analyze survey results, and produce this final report.

risk factors associated with preventable health conditions and disease. The survey results also will assist high risk groups such as adolescents, pregnant women, elderly, poor, and minority groups in making informal decisions that will affect their health. Moreover, the survey results will provide a basis for health professionals, legislators, public officials, foundations, universities, and other public and private groups to develop priorities for allocating health-related resources.

In conjunction with this health risk survey, the Montana Department of Justice, Highway Traffic Safety Division, provided funds to concurrently survey the same population. The Highway Traffic Safety portion of the questionnaire was targeted at determining Montanan's attitudes toward drinking while driving. The methods used to conduct this part of the survey as well as the survey results are presented in a separate chapter of this report.

This report presents the results of the statewide behavioral risk survey and summarizes the overall health status of Montanans. When possible, statistical comparisons are made between the 1982 CDC Montana survey and this year's survey.

II. METHODOLOGY

Telephone interviews were conducted with over 600 Montanans between January and July 1984 to gather self-reported information on the health status and health habits of Montana adults. The following sections present the procedures used in the health risk survey design and administration. The Highway Traffic Safety methodology is reported in Chapter IV.

A. Sampling Design

The sampling design for the survey was developed using a modified version of random digit dialing. Specifically, the total sample was distributed among the three-digit exchange codes in the state using proportional allocation. Then, within each three-digit exchange an appropriate set of usable telephone numbers were randomly selected and the sample numbers were obtained by adding a random value. When a number did not result in a completed call, another respondent was obtained by adding ten to the unsuccessful number called.

Because of Montana's rural environment, this type of sampling plan is much more efficient than other versions of random digit dialing. It not only results in good regional coverage of the state based on cities, towns, and rural populations, but also gives individuals with newly listed and unlisted numbers an equal chance for participation in the survey.

B. Questionnaire

The CDC developed and pretested the questionnaire used in conducting the survey. All states participating in the national project used the same standard questionnaire (see Appendix A).

There were six topic areas addressed in the survey. These areas included:

- 1) Seat Belts
- 2) Hypertension
- 3) Exercise
- 4) Diet
- 5) Cigarette Smoking
- 6) Alcohol Consumption

The last section of the questionnaire contained all demographic questions which included age, race, Hispanic origin, education, employment, marital status, income, and sex.

C. Administration of Survey

The CDC provided screening procedures to be followed in selecting eligible survey participants. In general, the screening process involved the following steps:

- 1) Confirming the telephone number dialed matched the randomly selected telephone number.
- 2) Making sure the randomly selected telephone number was a private residence number.
- 3) Selecting the adult member (18 years of age or older) in the household who had the next birthday.

The CDC also provided telephone number replacement procedures to ensure that each randomly selected telephone number had adequate attempts to yield an interview. A copy of these procedures are in Appendix B.

The interviews were conducted during the evening hours Monday through Friday and daytime hours on the weekends. All telephone interviews were administered at the Montana Statistical Center (sub-contractor to ECO Northwest) in Bozeman or at the office of ECO Northwest in Helena.

D. Data Analysis

After all interviews had been conducted, the data was keyed onto a preformatted record and verified at the Statistical Center at Montana State University. A tape of the data was then sent to the CDC office in Atlanta, Georgia for further editing. CDC returned an edited list of the data for error checking.

After automating the data, a statistical software package (SPSS) was used to generate frequency distributions and cross-tabulations for data that were both unweighted and weighted with respect to male/female response rates. Because the raw response rates for males and females differed from actual 1980 Montana Census data by approximately 15 percent, a weighting adjustment was made to the data. This adjustment was made by developing a male/female ratio for the 1980 Census in Montana ($392,600/394,100 = .996$) and a male/female ratio for the sample ($240/369 = .65$). The weights to the data were computed by the following equation:

$$W * .65 = .996$$

$$W = 1.532$$

W was then used to multiply times each male response in the sample to obtain a weighted response.

$$W * M_{\text{sample response}} = M_{\text{weighted response}}$$

The 95% confidence limits for unweighted distributions only are given by the following normal approximation on each estimated proportion P.

$$P \pm SE * 1.96 + 1/2n \quad (SE = \text{Standard Error})$$

$$P \pm ((1 - n/N) * P * Q/n-1))^{1/2} * 1.96 + 1/2n$$

Where for maximum limits

$$P = .5$$

$$Q = .5$$

$$n = 609$$

$$N = 786,000$$

The 95% confidence limits are:

$$P \pm .04$$

$A \pm 4$ percent confidence interval implies that if a survey response were 50 percent to event A, then 95 percent of the time the actual (population) value would range between 46 percent and 54 percent. Variation between responses less than ± 4 percent are not significant.

III. SURVEY RESULTS

The questionnaire was divided into six topic areas followed by demographic questions. This chapter presents the survey results, beginning with the demographic characteristics of the respondents. As previously stated, the oversampling of women was corrected by weighting the sample to the 1980 Montana Census population (see Chapter II for data analysis procedures).

A. Demographic Characteristics

Questions were asked concerning respondents' age, education, income, race, and so forth in an attempt to determine whether behavioral risk factors could be systematically linked to these demographic characteristics. A supplement to this report contains cross-tabulations of each question with income, age, sex, and education.

Table 1 presents the demographic features of the survey participants. From these data, it can be surmised that the average profile of the female survey respondent was:

Race: White

Educational Attainment: High School Graduate

Employment Status: Employed for wages

Marital Status: Married

Household Income: \$10,000 to \$35,000

TABLE 1
DEMOGRAPHIC CHARACTERISTICS
OF SURVEY RESPONDENTS

<u>Demographic Characteristic</u>	<u>Female</u>	<u>Male</u>	<u>All Respondents</u>
<u>Age</u>			
18 to 34 Years	35.2%	42.9%	39.1%
34 to 54 Years	32.2%	33.3%	32.8%
55 Years and Over	32.0%	22.5%	27.2%
<u>Race</u>			
White	97.6%	98.3%	97.9%
Aleutian, Eskimo, or American Indian	2.4%	0.8%	1.6%
<u>Education</u>			
Less Than High School	14.4%	13.4%	13.9%
High School Graduate	37.7%	29.7%	33.7%
Some College	25.5%	35.1%	30.3%
College Graduate	22.5%	21.8%	22.1%
<u>Employment Status</u>			
Employed for Wages	35.2%	47.9%	41.6%
Self-Employed	9.2%	20.8%	15.0%
Out of Work for More Than 1 Year	1.6%	1.7%	1.6%
Out of Work for Less Than 1 Year	2.4%	5.8%	4.1%
Homemaker	24.9%	1.3%	13.1%
Student	3.5%	4.6%	4.1%
Retired	23.0%	17.9%	20.5%
<u>Marital Status</u>			
Married	68.6%	70.3%	69.4%
Divorced	9.2%	8.8%	9.0%
Widowed	11.4%	3.3%	7.4%
Separated	1.6%	0.4%	1.0%
Never been married	8.4%	16.3%	12.3%
Member of unmarried couple	0.8%	0.4%	0.6%
<u>Household Income</u>			
Less than \$10,000	19.8%	15.1%	17.4%
\$10,000 To \$20,000	29.5%	33.1%	31.3%
\$20,000 To \$35,000	29.5%	29.7%	29.6%
Over \$35,000	11.7%	16.7%	14.2%

Note: Percents may not always sum to 100% because not all respondents answered within the answer categories or refused to answer that particular question.

The typical male profile was characterized by the following:

Race: White

Educational Attainment: Some college

Employment Status: Employed for wages

Marital Status: Married

Household Income: \$10,000 to \$35,000

Except for the educational attainment of the average male and female respondents, all other demographic characteristics hold true for both sexes.

Table 2 presents demographic data reported in the 1980 Montana Census as compared to the 1984 CDC survey results. The survey sample appears to represent an unbiased estimate of the state's adult population. Specifically, the CDC survey and the Census demographic patterns, as shown in Table 2, are generally within 5 percent of each other. The only survey category that seems to be significantly different than the Census is in the education distribution, where the sample contains 30 percent with "some college" education versus the Census figure of 20 percent. Comparisons of the 1984 CDC and 1980 Census income distributions are not possible because of the effect of inflation on the reported nominal income levels.

TABLE 2
COMPARISON OF SELECTED DEMOGRAPHIC
CHARACTERISTICS OF 1984 CDC SURVEY WITH
MONTANA 1980 CENSUS

Demographic Characteristic	1984 CDC Survey	1980 Montana Census
<u>Sex</u>		
Female	50%	50%
Male	50%	50%
<u>Age</u>		
18 to 34 Years	39%	43%
35 to 54 Years	33%	29%
Over 55 Years	27%	28%
<u>Education</u>		
Less than High School	14%	13%
High School Graduate	34%	38%
Some College	30%	20%
College Graduate	22%	17%
Other	N/A	12%
<u>Race</u>		
White	98%	94%
Non-white	2%	6%
<u>Marital Status</u>		
Married	69%	66%
Divorced	9%	7%
Widowed	7%	7%
Separated	1%	1%
Never been married	12%	19%
Other	1%	N/A

Note: Because the raw response rates for males and females differed from actual 1980 Montana Census data by approximately 15 percent, a weighting adjustment was made to the data.

B. Seat Belt Usage

The use of automobile seat belts and child restraint devices reduces the risk of injury or death in traffic accidents. Automobile accidents are the fourth leading cause of death among adults and the first leading cause of death of those persons in the age group of one to 35 years of age.

Although traffic accident statistics clearly show that seat belts are effective in reducing death and injury, 30.8 percent of the respondents indicated they never wear seat belts. Table 3 illustrates the frequency of seat belt use among those Montanans interviewed. From these data the following observations were made:

- 1) There is no significant difference in seat belt use between males and females.
- 2) Younger individuals (less than 34 years of age) tend to use seat belts more frequently than older individuals.
- 3) Lower income households tend to use seat belts with less frequency than higher income households.
- 4) Seat belt use is directly related to educational levels; that is, the higher the level of education, the higher the usage of seat belts.
- 5) For the general public as a whole, seat belts are used no more than 50 percent of the time.

In 1982, Montanans were also asked whether they use a seat belt while riding or driving in a car. It was found that 60 percent seldom or never use seat belts, 10.4 percent higher than reported in this year's survey (49.6 percent).

The National Highway Transportation and Safety Administration (1980) found that only 10.9 percent of the nation's drivers use seat belts.

TABLE 3
FREQUENCY OF SEAT BELT USE
AMONG SURVEY RESPONDENTS

Question:

How often do you use seat belts when you drive or ride in a car?

Demographic Characteristic	Frequency				
	Always	Nearly Always	Sometimes	Seldom	Never
<u>Sex</u>					
Female	18.4%	10.3%	22.5%	16.8%	29.5%
Male	18.3%	10.4%	17.9%	20.8%	32.1%
<u>Age</u>					
18 to 34 Years	23.8%	10.0%	20.4%	16.7%	29.1%
35 to 54 Years	14.6%	8.6%	22.4%	22.6%	31.8%
55 and Over	15.2%	12.0%	17.7%	18.3%	31.5%
<u>Household Income</u>					
Less than \$10,000	17.2%	8.6%	12.1%	19.1%	36.4%
\$10,000 to \$20,000	14.2%	7.6%	24.3%	19.7%	34.1%
\$20,000 to \$35,000	19.7%	16.2%	19.2%	19.1%	25.8%
Over \$35,000	23.7%	7.7%	23.9%	17.0%	27.7%
<u>Education</u>					
Less than High School	18.4%	9.3%	13.5%	15.1%	38.9%
High School Graduate	12.9%	8.3%	21.6%	20.0%	35.9%
Some College	17.5%	10.5%	23.4%	18.0%	29.8%
College Graduate	27.6%	14.0%	18.0%	21.1%	19.3%
All Respondents	18.4%	10.4%	20.2%	18.8%	30.8%

Note: Percents may not always sum to 100% because not all respondents ride in a car or refused to answer that particular question.

Although Montanans reported a higher incidence of seat belt usage (18.4 percent always use, 10.4 percent nearly always use, and 20.2 percent sometimes use), more individuals need to be convinced that seat belt use reduces the risk of being injured or killed in motor vehicle accidents.

C. Hypertension

Hypertension (high blood pressure) is a disease that greatly increases the risk of strokes and coronary heart disease and contributes to diseases of the kidneys and eyes. High blood pressure often begins early in life and progressively elevates with age. Although most cases of high blood pressure have no specifically known causes, factors which play a role in this disease are excessive sodium in the diet, stress, hereditary predisposition, and imbalance of the essential body minerals, calcium, magnesium, and potassium. Because the symptoms of this disease are often not apparent to the victim, it is essential that blood pressure checks be done routinely.

Approximately one out of five Montanans reported they have high blood pressure. The data presented in Table 4 indicate that the incidence of high blood pressure increases with age (10.4 percent of the 18 to 34 years of age group as compared to 41.2 percent of the over 55 years of age group reported having high blood pressure) and that females reported having high blood pressure more often than males. In addition, there was a significant difference in hypertension occurrence reported by respondents with less than a high school education (36.7 percent) and college graduates (12.2 percent). Those respondents with household incomes less than \$10,000, also had a higher incidence of high blood pressure when compared to the other income groups.

Table 5 presents data on the number of times that the respondents have been told they have high blood pressure. Of those persons who reported they had hypertension, two-thirds indicated they had been informed of their condition more than once.

RESPONDENTS WHO HAVE HIGH BLOOD PRESSURE

Question:

Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?

Demographic Characteristic	Been Told By A Doctor	Been Told By A Nurse
<u>Sex</u>		
Female	22.8%	1.4%
Male	17.1%	2.5%
<u>Age</u>		
18 to 34 Years	7.9%	2.5%
35 to 54 Years	17.2%	1.5%
Over 55 Years	40.2%	1.0%
<u>Household Income</u>		
Less than \$10,000	24.5%	0.8%
\$10,000 To \$20,000	20.9%	0.7%
\$20,000 To \$35,000	13.2%	4.7%
over \$35,000	19.4%	0.0%
<u>Education</u>		
Less Than High School	34.3%	2.4%
High School Graduate	17.7%	1.6%
Some College	23.6%	1.6%
College Graduate	9.7%	2.5%
All Respondents	19.9%	1.9%

TABLE 5

NUMBER OF TIMES RESPONDENTS WITH HIGH BLOOD PRESSURE WERE INFORMED OF THEIR CONDITION

Question:

Have you been told on more than one occasion that your blood pressure was high, or have you been told this only once?

Demographic Characteristic	More Than Once	Only Once
<u>Sex</u>		
Female	60.4%	39.6%
Male	71.1%	28.9%
<u>Age</u>		
18 to 34 Years	42.3%	57.7%
35 to 54 Years	56.1%	43.9%
Over 55 Years	78.8%	21.2%
<u>Household Income</u>		
Less than \$10,000	69.2%	30.8%
\$10,000 to \$20,000	70.5%	29.5%
\$20,000 to \$35,000	62.4%	37.6%
Over \$35,000	67.4%	32.6%
<u>Education</u>		
Less than High School	67.0%	33.0%
High School Graduate	77.9%	22.1%
Some College	61.0%	39.0%
College Graduate	53.9%	46.1%
All Respondents	66.3%	33.7%

Approximately 65 percent of those with high blood pressure were prescribed medicine for their condition, whereas 99 percent are currently taking prescribed medicine. The demographic characteristics of the hypertensive respondents (Table 6) for those prescribed medicine and those taking prescribed medicine are as follows:

- 1) Fewer males than females are currently prescribed and taking drugs for high blood pressure.

- 2) Older individuals are more likely to be prescribed and taking prescription medicine for hypertension.

- 3) Lower income individuals are more apt to be prescribed medicine than those in the higher income levels, but there is no significant difference among income groups for taking prescribed drugs.

- 4) Educational levels are associated with the prescription of medicine (26 percent of college graduates were prescribed medicine as compared to 93 percent of those with less than a high school education). As with different income levels, there was no significant difference among educational attainment and taking prescribed medicine.

The hypertensive survey participants were asked what measures (low salt diet, weight watching, relaxing/avoiding stress, cutting down/stopping smoking, following exercise program) they were taking to help control their high blood pressure. Table 7 shows that more females than their male counterparts utilize a low salt diet, watch their weight, and avoid stress, while more males than females cut down or quit smoking and are involved in an exercise program. Low salt usage, weight watching, and stress avoidance increases with age; however, exercise programs decrease as age increases. With respect to household income, persons with higher incomes tend to avoid salt, watch their weight, stop smoking, and exercise more

TABLE 6

PERCENT OF HYPERTENSIVE RESPONDENTS PRESCRIBED MEDICINE
AND TAKING MEDICINE FOR HYPERTENSION

Questions:

Is any medicine currently prescribed for your high blood pressure?
Are you currently taking medicine for your high blood pressure?

<u>Demographic Characteristic</u>	<u>Medicine Currently Prescribed</u>	<u>Currently Taking Medicine</u>
<u>Sex</u>		
Female	73.3%	100.0%
Male	54.2%	96.2%
<u>Age</u>		
18 to 34 Years	22.0%	76.8%
35 to 54 Years	49.3%	100.0%
Over 55 Years	86.4%	100.0%
<u>Household Income</u>		
Less than \$10,000	80.0%	100.0%
\$10,000 to \$20,000	78.4%	96.2%
\$20,000 to \$35,000	41.5%	100.0%
Over \$35,000	59.9%	100.0%
<u>Education</u>		
Less than High School	92.5%	100.0%
High School Graduate	64.1%	95.0%
Some College	60.1%	100.0%
College Graduate	25.6%	100.0%
All Respondents	64.7%	98.6%

TABLE 7

ACTIONS BEING TAKEN BY HYPERTENSIVE RESPONDENTS
TO CONTROL HIGH BLOOD PRESSURE

Question:

Are you doing any of the following to help control your high blood pressure?

Demographic Characteristic	Low Salt Diet	Watching Weight	Avoiding Stress	Decreasing/ Stopping Smoking*	Exercise Program
<u>Sex</u>					
Female	78.9%	81.1%	77.8%	16.7%	36.7%
Male	62.5%	64.6%	68.7%	31.3%	47.9%
<u>Age</u>					
18 to 34 Years	45.7%	66.1%	52.6%	13.6%	49.2%
35 to 54 Years	72.0%	74.1%	65.0%	29.3%	42.7%
Over 55 Years	80.5%	75.2%	84.7%	20.6%	39.5%
<u>Household Income</u>					
Less than \$10,000	72.2%	63.1%	80.0%	16.9%	20.0%
\$10,000 to \$20,000	70.3%	73.3%	76.4%	17.7%	39.2%
\$20,000 to \$35,000	58.5%	68.7%	66.3%	26.0%	44.3%
Over \$35,000	79.9%	87.5%	62.2%	29.9%	57.2%
<u>Education</u>					
Less than High School	77.1%	77.1%	84.8%	20.4%	28.0%
High School Graduate	72.6%	69.4%	67.4%	18.9%	41.1%
Some College	69.9%	72.5%	81.3%	29.3%	46.0%
College Graduate	64.0%	82.2%	46.1%	20.5%	61.6%
All Respondents	71.5%	73.7%	73.7%	23.2%	41.7%

*Notes:

- 1) Approximately 54% and 33% of the females and males, respectively, reported they do not smoke.
- 2) The respective age of those respondents reporting that they do not smoke were: 42.3% (18 to 34 Years), 33.6% (35 to 54 Years), and 53.4% (55 and Over).
- 3) The respective household incomes of those respondents reporting that they do not smoke were: 49.2% (Less than \$10,000), 42.9% (\$10,000 to \$20,000), 49.4% (\$20,000 to \$35,000), and 37.5% (Over \$35,000).
- 4) The respective educational levels of those respondents reporting that they do not smoke were: 50.4% (Less than High School), 45.1% (High School Graduate), 46.0% (Some College), and 33.3% (College Graduate).

often than lower income individuals. Lower income respondents were able to avoid stress better than the higher income individuals. Individuals with higher levels of education are more likely to be in an exercise program and watch their weight, but less apt to avoid stress or watch the consumption of salt in their diets.

In the 1982 Montana survey, 2.9 percent of the total population reported that their blood pressure was still high, whereas this year's survey found that 2.3 percent indicated their blood pressure was still high. Table 8 shows the following for respondents with high blood pressure:

- 1) As age increases, fewer respondents report a return to normal blood pressure as compared to those who report that their condition is under control.

- 2) More Montanans with income in excess of \$20,000 report a return to normal blood pressure than individuals with less than \$20,000 in household income. However, in the income extremes (i.e., very high or very low household incomes), the incidence of "still high" blood pressure is more apparent.

- 3) Educational levels appear to be related to bringing blood pressure levels under control, with 79 percent of those with less than a high school education compared to 59 percent of college graduates reporting their condition to be under control.

There are several paths that individuals can follow to help prevent or control hypertension. In a survey conducted for Pacific Mutual Life Insurance Company, Louis Harris & Associates (1978) reported that more than 60 percent of the national population were aware that obesity, stress, and

TABLE 8

STATUS (NORMAL, UNDER CONTROL, HIGH) OF
RESPONDENTS' BLOOD PRESSURE

Question:

As far as you know, is your blood pressure presently normal or under control--or is it still high?

Demographic Characteristic	Blood Pressure		
	Normal	Under Control	Still High
<u>Sex</u>			
Female	20.7%	66.7%	10.3%
Male	34.0%	51.1%	10.6%
<u>Age</u>			
18 to 34 Years	44.6%	37.6%	12.4%
35 to 54 Years	35.8%	51.5%	9.2%
Over 55 Years	16.9%	71.1%	10.8%
<u>Household Income</u>			
Less than \$10,000	18.7%	64.3%	17.1%
\$10,000 to \$20,000	15.2%	74.8%	10.0%
\$20,000 to \$35,000	39.0%	50.6%	7.9%
Over \$35,000	37.5%	29.9%	17.4%
<u>Education</u>			
Less than High School	16.0%	78.7%	5.3%
High School Graduate	30.6%	56.7%	12.7%
Some College	29.7%	49.9%	11.1%
College Graduate	28.3%	58.9%	12.8%
All Respondents	26.7%	59.6%	10.5%

Note: Percents may not sum to 100% because some respondents reported "don't know."

salt were contributing factors to hypertension. Moreover, 30 percent mentioned alcohol abuse, fatty food, heredity, and smoking as increasing the chances of developing high blood pressure.

Eighty-six percent of Montanans who have high blood pressure reported that their condition was either under control or normal; however, 11 percent indicated that their blood pressure was still high. The data indicate that those who were prescribed medicine are taking it, but other measures that have been known to help control hypertension perhaps are being ignored.

Following a low salt diet, watching weight, and avoiding stress/relaxing were reported by over 70 percent as measures being practiced by respondents with high blood pressure. On the other hand, cutting down/stopping smoking and following an exercise program appear to be options that are not as common among hypertensive Montanans. Since high blood pressure is a multifaceted phenomenon, no single treatment/control regimen is necessarily right for all individuals (U.S. Department of Health and Human Services 1980). However, physicians must inform their hypertensive patients of all the measures available that can be taken to control hypertension. Moreover, hypertensive Montanans should also change their life-style to include these prescriptive measures to enjoy a normal and healthy life.

D. Exercise

Moderate exercise performed on a regular basis is a positive life-style behavior which can prevent or ameliorate obesity, coronary disease, hypertension, diabetes, musculoskeletal problems, respiratory diseases, stress, depression, and anxiety (U.S. Department of Health and Human Services 1980). Exercise involving large muscle groups in active movement for periods of 20 minutes or longer, three or more days per week is considered the most beneficial.

The respondents were asked the two types of physical activity they had participated in most during the past month. Walking far exceeded all other reported activities as being the most common form of exercise. Tables 9 and 10 illustrate the five primary and secondary forms of physical activity in which survey participants were involved. While generally more females than males walk for exercise, more males than females run. Frequency of walking increases with age, but more strenuous exercise such as running decreases with age. Walking frequency is inversely related to educational levels; that is, college graduates reported walking as a form of exercise less often than those in the lower educational groups. College graduates, however, indicated that they run more often than the other educational groups (e.g., 11.1 percent college graduates and 2.2 percent with less than a high school education reported that they run).

Table 11 presents the distances that respondents reported they walk, swim, or run (primary exercise). One to five miles was the most commonly recorded response. Table 12 shows the length of time that survey

TABLE 9

FIVE PRIMARY FORMS OF PHYSICAL ACTIVITY
REPORTED BY RESPONDENTS

Question:

What type of physical activity or exercise did you spend the most time doing during the past month?

Demographic Characteristic	Type of Exercise				
	Walking	Running	Calisthenics	Aerobics	Racketball
<u>Sex</u>					
Female	46.6%	4.4%	5.4%	7.0%	0.7%
Male	32.7%	10.7%	3.6%	0.5%	5.6%
<u>Age</u>					
18 to 34 Years	28.7%	14.0%	5.9%	5.6%	5.0%
35 to 54 Years	40.1%	4.3%	4.2%	4.0%	2.9%
Over 55 Years	60.0%	0.0%	2.2%	0.0%	0.0%
<u>Household Income</u>					
Less than \$10,000	49.6%	11.1%	4.1%	0.0%	3.2%
\$10,000 to \$20,000	44.6%	7.8%	5.4%	6.1%	3.8%
\$20,000 to \$35,000	29.5%	4.9%	4.9%	4.8%	2.2%
Over \$35,000	40.9%	7.3%	3.9%	1.1%	5.1%
<u>Education</u>					
Less than High School	57.8%	2.2%	5.0%	0.0%	2.2%
High School Graduate	42.3%	4.7%	4.4%	4.1%	2.4%
Some College	38.2%	9.8%	5.1%	3.5%	3.8%
College Graduate	29.3%	11.1%	3.5%	5.5%	3.8%
All Respondents	39.6%	7.6%	4.5%	3.8%	3.2%

TABLE 10

FIVE SECONDARY FORMS OF PHYSICAL ACTIVITY
REPORTED BY RESPONDENTS

Question:

Was there another physical activity or exercise that you participated in during the last month?

Demographic Characteristic	Type of Exercise				
	Walking	Snow Ski	Calisthenics	Weight Lift	Shovel Snow
<u>Sex</u>					
Female	17.2%	5.2%	9.0%	5.2%	3.7%
Male	14.0%	11.2%	5.6%	6.5%	7.5%
<u>Age</u>					
18 to 34 Years	13.3%	10.4%	7.6%	10.0%	3.7%
35 to 54 Years	21.8%	8.2%	6.6%	2.5%	7.7%
Over 55 Years	8.9%	3.4%	6.7%	0.0%	8.9%
<u>Household Income</u>					
Less than \$10,000	2.6%	0.0%	3.9%	16.9%	5.1%
\$10,000 to \$20,000	14.4%	5.3%	6.9%	4.8%	5.9%
\$20,000 to \$35,000	18.4%	16.3%	5.9%	4.3%	4.9%
Over \$35,000	11.5%	10.5%	11.6%	5.3%	8.5%
<u>Education</u>					
Less than High School	17.4%	4.8%	3.1%	0.0%	11.1%
High School Graduate	11.4%	6.7%	10.0%	5.4%	8.1%
Some College	10.3%	10.4%	3.2%	9.3%	3.8%
College Graduate	23.2%	9.5%	10.0%	5.2%	4.2%
All Respondents	15.4%	8.5%	7.1%	5.9%	5.8%

TABLE 11

DISTANCE RESPONDENTS WALK, RUN, OR SWIM

Question:

How far did you usually walk/run/swim?

Demographic Characteristic	Less Than 1 Mile	1 to 5 Miles	More Than 5 Miles
<u>Sex</u>			
Female	19.5%	63.5%	6.9%
Male	14.6%	57.3%	15.7%
<u>Age</u>			
18 to 34 Years	10.4%	67.0%	11.3%
35 to 54 Years	19.4%	57.1%	13.0%
Over 55 Years	25.7%	55.3%	8.7%
<u>Household Income</u>			
Less than \$10,000	27.0%	53.4%	6.8%
\$10,000 to \$20,000	11.8%	69.9%	9.9%
\$20,000 to \$35,000	26.3%	45.1%	14.7%
Over \$35,000	5.4%	69.8%	17.3%
<u>Education</u>			
Less than High School	35.9%	41.9%	5.8%
High School Graduate	14.1%	66.9%	9.8%
Some College	14.3%	58.7%	14.4%
College Graduate	15.0%	66.0%	11.1%
All Respondents	17.2%	60.7%	11.0%

Note: Percents may not sum to 100% because some respondents reported "don't know."

TABLE 12

LENGTH OF TIME RESPONDENTS
PARTICIPATED IN PHYSICAL ACTIVITYQuestion:

And when you took part in this activity, for how many minutes or hours did you usually keep at it?

Demographic Characteristic	Less Than 30 Minutes	30 to 60 Minutes	More Than 60 Minutes
<u>Sex</u>			
Female	27.9%	27.5%	38.3%
Male	26.5%	23.0%	43.9%
<u>Age</u>			
18 to 34 Years	27.4%	25.1%	42.9%
35 to 54 Years	26.3%	26.3%	41.8%
Over 55 Years	27.5%	25.0%	36.1%
<u>Household Income</u>			
Less than \$10,000	34.6%	22.5%	34.6%
\$10,000 to \$20,000	28.0%	25.1%	40.4%
\$20,000 to \$35,000	26.0%	24.4%	45.0%
Over \$35,000	22.5%	32.0%	39.8%
<u>Education</u>			
Less than High School	25.7%	29.9%	32.2%
High School Graduate	28.4%	25.8%	38.8%
Some College	25.8%	22.7%	46.4%
College Graduate	28.0%	26.0%	41.5%
All Respondents	27.2%	25.2%	41.1%

Note: Percents may not sum to 100% because some respondents reported "don't know."

participants engaged in their primary type of physical activity. Most of the respondents (41.1 percent) indicated that each time they participate in their primary form of physical activity they keep at it for more than 60 minutes.

Public awareness of the benefits associated with regular physical activity appears to be increasing. The most popular type of exercise reported by Montanans was walking, where 40 percent recognized this activity as their primary form of exercise. When compared to walking, the incidence of other reported types of physical activity dropped significantly. For example, second to walking, running was reported to be the type of exercise that respondents participated in most, with only 7.6 percent reportedly running as exercise. In short, it appears from this data that the majority of Montanans are generally inactive.

In a survey conducted for Pacific Mutual Life Insurance Company, Louis Harris & Associates (1978) found that three-quarters of the people who thought they needed more exercise were never advised of this by their physician. Health professionals and physicians should advise individuals of the benefits associated with physical activity and encourage them to participate in exercise suitable for their age and physical condition. Ultimately, however, it becomes the individual's responsibility to change his/her life-style to include regular physical activity.

E. Diet

The consumption of excessive food or the lack of a well-balanced diet may lead to increased incidence of or susceptibility to communicable disease, chronic disease, or disability. The U.S. Department of Health and Human Services (1980) reported that obesity, for example, increases the risk of certain chronic diseases such as heart disease, adult-onset diabetes, high blood pressure, and possibly some types of cancer. Similarly, excessive salt ingestion increases the risk of high blood pressure.

Table 13 presents the frequency that survey participants add salt to their food at the table. The majority (53.2 percent) indicated that they rarely or never add salt to their food; however, one-third reported they add salt most of the time. Men tend to use salt more often than women, with the frequency of use of table salt decreasing for individuals over 55 years of age.

Over one-third of the respondents indicated that they eat red meat seven days per week (Table 14). The following observations were recorded concerning consumption of red meat:

- 1) Males tend to eat red meat more frequently than females.
- 2) The 35 to 54 year age group consumes red meat more days per week than either the younger (18 to 34 years) or older (over 55 years) age groups.
- 3) Frequency (days per week) of red meat consumption is lower in the \$35,000 or more income bracket than for lower income households.
- 4) College graduates eat red meat fewer days per week than the respondents in the other educational categories.

TABLE 13

FREQUENCY THAT RESPONDENTS
ADD SALT TO THEIR FOOD

Question:

How often do you usually add salt to your food at the table?

Demographic Characteristic	Most of The Time	Sometimes	Rarely/ Never
<u>Sex</u>			
Female	24.7%	15.7%	59.6%
Male	37.5%	15.8%	46.7%
<u>Age</u>			
18 to 34 Years	36.7%	17.0%	46.3%
35 to 54 Years	38.1%	14.9%	47.1%
Over 55 Years	14.8%	16.0%	69.2%
<u>Household Income</u>			
Less than \$10,000	31.8%	12.5%	55.7%
\$10,000 to \$20,000	30.0%	16.0%	54.0%
\$20,000 to \$35,000	34.6%	17.3%	48.0%
Over \$35,000	26.3%	16.6%	57.1%
<u>Education</u>			
Less than High School	28.2%	17.0%	54.7%
High School Graduate	34.5%	12.2%	53.3%
Some College	31.0%	17.1%	51.9%
College Graduate	27.7%	19.2%	53.1%
All Respondents	31.1%	15.8%	53.2%

TABLE 14

FREQUENCY THAT RESPONDENTS
EAT RED MEAT

Question:

Including breakfast, lunch and dinner, how many days per week, if any, do you eat red meat such as beef, pork, hamburger or sausage but not including chicken or fish?

Demographic Characteristic	Days Per Week						
	1	2	3	4	5	6	7
<u>Sex</u>							
Female	6.5%	10.8%	18.4%	13.8%	13.8%	4.9%	29.5%
Male	5.4%	6.7%	11.3%	16.3%	9.2%	6.7%	43.8%
<u>Age</u>							
18 to 34 Years	6.0%	9.1%	14.2%	15.6%	13.0%	6.0%	34.2%
35 to 54 Years	3.3%	5.8%	14.2%	15.9%	13.1%	6.3%	40.9%
Over 55 Years	9.3%	12.0%	17.0%	12.8%	7.7%	5.0%	34.3%
<u>Household Income</u>							
Less than \$10,000	9.4%	10.9%	19.5%	11.3%	5.8%	3.5%	36.0%
\$10,000 to \$20,000	5.9%	9.6%	12.3%	16.0%	12.7%	3.3%	39.4%
\$20,000 to \$35,000	4.7%	4.8%	13.1%	16.7%	15.1%	7.9%	37.0%
Over \$35,000	2.9%	12.6%	18.9%	16.5%	9.7%	11.2%	27.3%
<u>Education</u>							
Less than High School	7.2%	15.5%	18.4%	11.7%	8.7%	4.9%	31.6%
High School Graduate	6.1%	8.1%	11.1%	14.7%	12.2%	6.5%	40.8%
Some College	4.1%	6.8%	14.5%	15.7%	11.6%	6.1%	38.5%
College Graduate	7.5%	8.7%	18.6%	16.8%	12.1%	4.7%	29.8%
All Respondents	6.0%	8.8%	14.8%	15.0%	11.5%	5.8%	36.6%

Note: Percents may not sum to 100% because some respondents reported "don't know."

Tables 15 and 16 present the percent of respondents on a diet to loose weight and the number of pounds these respondents indicated they had lost. Twenty percent of Montanans reported they were currently attempting to lose weight. Twice as many females as males were dieting, while after age 55, fewer people reported dieting. As income increases, so does the frequency of those persons who diet. Twice as many college graduates reported dieting than individuals with less than a high school education. Although some respondents reported losing up to 80 pounds, the majority (61.2 percent) indicated a weight loss of between one and ten pounds (Table 16).

The current height and weight of survey respondents are presented in Tables 17 and 18. Data on these tables indicate that most Montanans weigh between 120 and 180 pounds, with more females than males weighing in the lower limits (120 to 150 pounds). Forty-eight percent reported they were between 5 feet 6 inches and 6 feet in height, with 61 percent being males in this height category.

In a national survey (Louis Harris & Associates 1978), it was reported that 67 percent of American adults recognized that they would be healthier if they made changes in their diets. Moreover, 57 percent indicated that it would be most useful if their doctors assisted them in the selection of their diet. Since nutrition is a vital aspect of disease prevention and health promotion, health officials should help their patients choose a diet compatible with their needs (i.e., weight control, low salt diet, low cholesterol diet, and so forth).

TABLE 15

RESPONDENTS CURRENTLY
ON DIET TO LOSE WEIGHT

Question:

Are you now on a diet to lose weight?

Demographic Characteristic	Percent of Respondents
<u>Sex</u>	
Female	26.0%
Male	13.3%
<u>Age</u>	
18 to 34 Years	20.0%
35 to 54 Years	23.8%
Over 55 Years	14.2%
<u>Household Income</u>	
Less than \$10,000	13.2%
\$10,000 to \$20,000	20.0%
\$20,000 to \$35,000	21.9%
Over \$35,000	22.8%
<u>Education</u>	
Less than High School	11.5%
High School Graduate	24.0%
Some College	16.8%
College Graduate	22.3%
All Respondents	19.7%

TABLE 16

NUMBER OF POUNDS LOST
BY RESPONDENTS ON DIET

Question:

How much weight, if any, have you lost since beginning your diet?

Demographic Characteristic	Number of Pounds				
	1 to 5	6 to 10	11 to 15	16 to 20	25 to 80
<u>Sex</u>					
Female	35.7%	25.1%	13.1%	7.1%	9.6%
Male	27.5%	34.4%	13.7%	6.8%	6.8%
<u>Age</u>					
18 to 34 Years	38.4%	24.3%	18.2%	2.0%	9.1%
35 to 54 Years	22.8%	35.7%	12.0%	13.9%	7.0%
Over 55 Years	39.6%	22.7%	7.5%	3.7%	11.1%
<u>Household Income</u>					
Less than \$10,000	53.1%	6.2%	9.5%	6.2%	18.6%
\$10,000 to \$20,000	21.0%	43.4%	16.2%	0.0%	7.4%
\$20,000 to \$35,000	38.9%	23.4%	10.4%	11.7%	5.2%
Over \$35,000	38.4%	21.2%	16.8%	10.6%	6.4%
<u>Education</u>					
Less than High School	44.4%	22.2%	0.0%	0.0%	22.2%
High School Graduate	27.2%	36.4%	14.6%	10.0%	1.8%
Some College	33.7%	20.0%	13.8%	7.7%	16.7%
College Graduate	38.7%	24.3%	14.5%	3.2%	8.1%
All Respondents	32.9%	28.3%	13.5%	7.1%	8.0%

Note: Percents may not sum to 100% because some respondents reported "don't know."

CURRENT WEIGHT OF RESPONDENTS

Question:

What is your current weight? (without shoes, with light indoor clothing on)

Demographic Characteristic	Weight in Pounds				
	Less Than 120	120 to 150	150 to 180	180 to 210	More Than 210
Sex					
Female	17.6%	51.8%	18.7%	6.0%	2.2%
Male	0.4%	12.1%	43.8%	30.8%	12.1%
Age					
18 to 34 Years	8.0%	36.4%	33.4%	14.0%	6.5%
35 to 54 Years	11.8%	25.0%	27.9%	23.8%	8.4%
Over 55 Years	7.4%	33.3%	32.1%	18.6%	6.5%
Household Income					
Less than \$10,000	6.2%	39.3%	33.8%	14.5%	4.7%
\$10,000 to \$20,000	8.7%	31.1%	30.9%	18.5%	9.7%
\$20,000 to \$35,000	10.8%	29.2%	32.0%	17.3%	6.8%
Over \$35,000	9.6%	25.5%	26.8%	29.3%	8.8%
Education					
Less than High School	8.7%	34.9%	33.1%	15.6%	5.8%
High School Graduate	8.1%	38.6%	25.6%	18.9%	6.4%
Some College	9.4%	26.4%	30.1%	23.8%	7.6%
College Graduate	10.2%	27.4%	40.3%	11.9%	8.4%
All Respondents	9.0%	32.0%	31.2%	18.4%	7.1%

Note: Percents may not sum to 100% because some respondents reported "don't know," or refused.

TABLE 18

CURRENT HEIGHT OF RESPONDENTS

Question:

What is your height without shoes?

Demographic Characteristic	Less Than 5'	5' to 5'6"	5'6" to 6'	More Than 6'
Sex				
Female	1.9%	61.5%	35.5%	0.5%
Male	0.4%	5.0%	60.8%	33.8%
Age				
18 to 34 Years	0.7%	26.2%	49.4%	23.7%
35 to 54 Years	1.0%	36.5%	47.5%	15.0%
Over 55 Years	2.0%	40.0%	46.4%	10.6%
Household Income				
Less than \$10,000	2.3%	32.9%	51.7%	13.0%
\$10,000 to \$20,000	0.4%	30.4%	50.7%	17.7%
\$20,000 to \$35,000	0.9%	32.7%	49.1%	17.3%
Over \$35,000	1.5%	30.2%	46.3%	22.0%
Education				
Less than High School	4.8%	38.6%	45.3%	10.3%
High School Graduate	1.4%	39.2%	42.5%	16.5%
Some College	0.0%	26.5%	54.9%	18.6%
College Graduate	0.0%	30.8%	49.7%	19.5%
All Respondents	1.2%	33.3%	48.1%	17.1%

Note: Percents may not sum to 100% because some respondents reported "don't know."

F. Cigarette Smoking

Cigarette smoking, the single most important preventable cause of death and disease (U.S. Department of Health and Human Services 1980), is associated with more preventive deaths than any other life-style behavior. Smoking significantly increases the rate of premature death due to coronary disease, cancer, and strokes.

Although cigarette smoking is a leading cause of preventable deaths, currently 29.3 percent of Montanans are cigarette smokers (Table 19). This represents a slight and probably not statistically significant increase in smoking since the 1982 survey which reported an incidence rate of 26.5 percent. More males have experimented (smoking 100 cigarettes in their life) with smoking than females; however, male and female current smoking incidence rates are similar. Fewer young people (age 18 to 34) have either smoked 100 cigarettes in their life or currently smoke as compared to their older aged counterparts (over 35 years of age). The highest smoking frequency is found in the 35 to 54 years of age bracket. People with low incomes (less than \$20,000) consider themselves cigarette smokers more often than those in the higher income brackets. College graduates, as compared to other educational level respondents, report the lowest incidence of experimenting with cigarette smoking as well as reporting the lowest incidence of being current cigarette smokers.

Table 20 shows the daily number of packs of cigarettes smoked by current smokers. Approximately 79 percent smoke less than one pack a day, 18.7 percent smoke more than two packs, and 2.1 percent more than two packs. It can be surmised from Table 20 that:

- 1) Males smoke more packs per day than females.
- 2) Younger people smoke less on a daily basis than their older counterparts.

TABLE 19

PERCENT OF RESPONDENTS WHO HAVE SMOKED
100 CIGARETTES IN LIFE AND RESPONDENTS
WHO CURRENTLY SMOKE CIGARETTES

Questions:

Have you smoked at least 100 cigarettes in your life?
Do you smoke cigarettes now?

Demographic Characteristic	100 Cigarettes in Life	Current Smokers
<u>Sex</u>		
Female	45.8%	28.7%
Male	63.8%	29.9%
<u>Age</u>		
18 to 34 Years	43.4%	22.8%
35 to 54 Years	62.2%	36.0%
Over 55 Years	61.8%	30.2%
<u>Household Income</u>		
Less than \$10,000	46.2%	33.3%
\$10,000 to \$20,000	58.6%	33.8%
\$20,000 to \$35,000	59.5%	25.7%
Over \$35,000	52.9%	23.1%
<u>Education</u>		
Less than High School	54.1%	33.7%
High School Graduate	60.6%	35.1%
Some College	55.9%	29.1%
College Graduate	44.1%	17.2%
All Respondents	54.8%	29.3%

TABLE 20

NUMBER OF PACKS OF CIGARETTES
SMOKED DAILY BY REPORTED CIGARETTE SMOKERS

Question:

On the average, about how many cigarettes a day do you now smoke?

Demographic Characteristic	Less Than 1 Pack	1 to 2 Packs	More Than 2 Packs
<u>Sex</u>			
Female	84.0%	15.1%	0.0%
Male	73.6%	22.2%	4.2%
<u>Age</u>			
18 to 34 Years	86.2%	12.3%	0.0%
35 to 54 Years	76.2%	22.0%	1.8%
Over 55 Years	73.2%	21.8%	5.1%
<u>Household Income</u>			
Less than \$10,000	75.2%	21.3%	3.6%
\$10,000 to \$20,000	80.0%	18.1%	2.0%
\$20,000 to \$35,000	82.9%	17.1%	0.0%
Over \$35,000	64.5%	31.4%	0.0%
<u>Education</u>			
Less than High School	65.1%	30.5%	4.4%
High School Graduate	83.1%	15.1%	1.8%
Some College	84.3%	11.7%	2.4%
College Graduate	67.6%	32.4%	0.0%
All Respondents	78.7%	18.7%	2.1%

Note: Percents may not sum to 100% because some respondents reported that they "don't smoke regularly."

3) No definite pattern exists among household income levels and quantity of cigarettes smoked.

One-third of the Montana cigarette smokers indicated they had stopped smoking for at least a week during the past year (Table 21). Males and females stop smoking in approximately equal proportions, while younger people attempt to stop smoking more frequently than older people. In addition, people in higher income groups are more likely to try to quit smoking than individuals in the lower income brackets. Educational levels, on the other hand, do not appear to have a significant influence on individuals who attempt to stop smoking cigarettes.

Thirty million people in the United States have successfully performed the arduous task of changing themselves from smokers to exsmokers (Bauer 1981). Of the 29 percent of current Montana cigarette smokers, 35 percent reported that they had stopped smoking at least one week. Although the majority of smokers in Montana (78 percent) smoke less than one pack of cigarettes a day, they are endangering their lives as well as potentially those persons around them.

If an anti-smoking campaign is to be effective, individuals must be informed of the risks (e.g., coronary disease, lung cancer, respiratory diseases) associated with cigarette smoking. Moreover, health education and preventative health measures should focus on increasing self-initiated cessation, reducing the risk associated with smoking by reducing the number of cigarettes smoked per day, emphasizing the immediate benefits of cessation, and most importantly never starting to smoke. Physicians and health professionals should inform their patients of the health hazards of cigarette smoking.

TABLE 21

PERCENT OF CIGARETTE SMOKERS WHO STOPPED SMOKING
FOR AT LEAST A WEEK DURING PAST YEAR

Question:

Have you stopped smoking for a week or more sometime during the past year?

Demographic Characteristic	Percent of Respondents
<hr/>	
<u>Sex</u>	
Female	33.0%
Male	36.1%
<u>Age</u>	
18 to 34 Years	51.6%
35 to 54 Years	30.1%
Over 55 Years	24.1%
<u>Household Income</u>	
Less than \$10,000	27.0%
\$10,000 to \$20,000	32.3%
\$20,000 to \$35,000	36.1%
Over \$35,000	43.8%
<u>Education</u>	
Less than High School	30.5%
High School Graduate	35.5%
Some College	36.7%
College Graduate	34.0%
All Respondents	34.6%

G. Alcohol Consumption

Alcohol, often considered a beverage rather than a drug, can, if abused, depress the nervous system and harm the liver and other organs the body. The influence of alcohol on the nervous system can lead to psychological and social effects which, in turn, can increase risk of injury or death (especially by accidents, fires, or violence) to oneself, family members, or others. The excessive use of alcohol also has been known to cause cancer of the oral cavity, esophagus, and pharynx.

Even though Montanans may be aware that alcohol can be harmful to their health, 69 percent reported that they had drunk an alcoholic beverage during the past month (Table 22). Furthermore, it was found that more men than women reported drinking alcohol in the past month, older persons (over 55 years of age) were less likely to have had a drink in the past month than their younger counterparts, individuals with lower household incomes were less likely to have drunk an alcoholic beverage in the past month than those with a higher household incomes, and higher educational levels are associated with a higher incidence of drinking in the past month.

Tables 23 through 28 show the frequency which the respondents drank beer, wine, and liquor and the number of drinks that they consumed on each occasion that they drank this alcoholic beverage. Tables 23 and 24 show that approximately one person in three drank beer at least once a week, males drank more beer more often than females, and younger individuals drank more beer more often than older people. Frequency of beer drinking does not appear to be significantly related to household income or educational levels; however, the quantity of beer consumed seems to be highest in the lower income group (less than \$10,000) and highest in the group with less than a high school education.

TABLE 22

PERCENT OF RESPONDENTS HAVING
ALCOHOLIC BEVERAGE DURING PAST MONTH

Question:

Have you had any beer, wine or liquor during the past month, that is,
since _____?

Demographic Characteristic	Percent of Respondents
<u>Sex</u>	
Female	61.8%
Male	76.7%
<u>Age</u>	
18 to 34 Years	76.0%
35 to 54 Years	76.2%
Over 55 Years	51.4%
<u>Household Income</u>	
Less than \$10,000	54.4%
\$10,000 to \$20,000	63.9%
\$20,000 to \$35,000	79.4%
Over \$35,000	78.7%
<u>Education</u>	
Less than High School	48.7%
High School Graduate	67.6%
Some College	69.4%
College Graduate	83.3%
All Respondents	69.2%

TABLE 23

FREQUENCY OF BEER DRINKING BY RESPONDENTS
WHO REPORTED DRINKING BEER IN THE PAST MONTH

Question:

During the past month, how many days per week or per month did you drink
any beer?

Demographic Characteristic	<u>Times Per Week</u>		<u>Times Per Month</u>	
	1 to 5	6 or More	1 to 5	6 or More
<u>Sex</u>				
Female	21.0%	2.6%	21.5%	1.8%
Male	37.5%	10.3%	23.9%	7.6%
<u>Age</u>				
18 to 34 Years	41.6%	3.7%	29.3%	5.1%
35 to 54 Years	26.5%	7.7%	20.9%	6.1%
Over 55 Years	12.2%	12.3%	13.1%	3.0%
<u>Household Income</u>				
Less than \$10,000	32.4%	10.1%	24.5%	2.2%
\$10,000 to \$20,000	29.7%	6.9%	25.1%	5.9%
\$20,000 to \$35,000	33.2%	4.7%	24.8%	4.1%
Over \$35,000	30.4%	6.8%	12.4%	6.8%
<u>Education</u>				
Less than High School	24.0%	11.0%	14.9%	3.0%
High School Graduate	28.4%	7.6%	24.5%	2.7%
Some College	34.8%	3.0%	26.9%	7.3%
College Graduate	29.7%	9.0%	19.4%	6.0%
All Respondents	30.1%	6.9%	22.8%	5.0%

Note: Percents may not sum to 100% because some respondents reported "don't know," "never/none," or refused.

TABLE 24
AVERAGE NUMBER OF BEERS DRANK
EACH TIME

Question:

On the days when you drank beer, about how many beers did you drink on the average?

Demographic Characteristic	Number of Beers		
	1 to 2	3 to 5	6 or More
<u>Sex</u>			
Female	66.4%	29.0%	4.7%
Male	52.7%	31.5%	15.1%
<u>Age</u>			
18 to 34 Years	46.8%	38.6%	13.7%
35 to 54 Years	63.5%	26.1%	10.4%
Over 55 Years	82.0%	10.8%	7.3%
<u>Household Income</u>			
Less than \$10,000	41.6%	33.3%	25.1%
\$10,000 to \$20,000	62.9%	29.9%	7.1%
\$20,000 to \$35,000	58.2%	33.0%	8.8%
Over \$35,000	59.3%	27.5%	9.9%
<u>Education</u>			
Less than High School	66.1%	13.1%	20.8%
High School Graduate	52.1%	31.0%	16.8%
Some College	48.3%	39.3%	11.0%
College Graduate	71.8%	24.7%	3.5%
All Respondents	57.1%	30.7%	11.7%

Note: Percents may not sum to 100% because some respondents reported "don't know."

Unlike the respondents who drank beer, females drank wine more frequently than males, and the older age group (over 55 years) drank wine more often than younger age groups. Households in higher income brackets drank wine more frequently than those in the lower income groups, and college graduates drank wine more often than those with lower educational attainments (Table 25). Table 26 presents the average number of glasses of wine respondents drank on each occasion. Approximately 83 percent of all wine drinkers consumed one to two glasses of wine each time. According to the survey results, on a daily basis males drank slightly more wine than females, younger persons drank more wine at one sitting than older individuals, households with less than \$10,000 income drank more wine on each occasion than higher income groups, and people with less than a high school education drank more wine at one time than those with higher education (Table 26).

When the respondents were asked about their drinking habits with regard to liquor (Tables 27 and 28) such as vodka, gin, or whiskey, it was found that:

- 1) Frequency of liquor consumption between males and females were similar; however, males drank more at one time than females.

- 2) Younger people (18 to 34 years) drank liquor less frequently than older persons (35 and over); however, on the average they tended to drink larger quantities (6 or more drinks) on any given occasion.

- 3) Liquor consumption frequency is related to income, with the higher income group (over \$35,000) indicating they drank liquor more often than the lower income level groups.

TABLE 25

FREQUENCY OF WINE DRINKING BY RESPONDENTS
WHO REPORTED DRINKING WINE IN THE PAST MONTH

Question:

Also, during the past month, how many days per week or per month did you drink any wine?

Demographic Characteristic	Times Per Week		Times Per Month	
	1 to 5	6 or More	1 to 5	6 or More
<u>Sex</u>				
Female	15.9%	2.6%	38.2%	2.7%
Male	8.7%	3.3%	29.4%	2.7%
<u>Age</u>				
18 to 34 Years	11.3%	0.7%	35.6%	3.0%
35 to 54 Years	10.2%	2.8%	34.3%	3.9%
Over 55 Years	16.5%	8.3%	27.2%	0.0%
<u>Household Income</u>				
Less than \$10,000	5.0%	7.2%	30.2%	2.8%
\$10,000 to \$20,000	7.9%	2.8%	29.7%	1.4%
\$20,000 to \$35,000	12.9%	1.8%	37.2%	1.8%
Over \$35,000	19.8%	2.4%	39.4%	6.8%
<u>Education</u>				
Less than High School	7.0%	8.0%	17.9%	3.0%
High School Graduate	7.2%	1.8%	29.8%	0.6%
Some College	7.5%	2.3%	39.7%	2.6%
College Graduate	24.6%	3.4%	36.5%	5.2%
All Respondents	11.9%	3.0%	33.3%	2.7%

Note: Percents may not sum to 100% because some respondents reported "don't know," "never/none," or refused.

TABLE 26

AVERAGE NUMBER OF GLASSES OF WINE
DRANK EACH TIME

Question:

On the days when you drank wine, about how many glasses of wine did you drink on the average?

Demographic Characteristic	Number of Glasses		
	1 to 2	3 to 5	6 or More
<u>Sex</u>			
Female	88.1%	10.4%	1.5%
Male	76.5%	19.8%	2.5%
<u>Age</u>			
18 to 34 Years	78.2%	19.5%	0.9%
35 to 54 Years	82.1%	15.2%	2.7%
Over 55 Years	92.5%	4.7%	2.8%
<u>Household Income</u>			
Less than \$10,000	76.3%	12.6%	11.1%
\$10,000 to \$20,000	90.1%	9.9%	0.0%
\$20,000 to \$35,000	79.7%	18.7%	0.0%
Over \$35,000	82.8%	14.5%	2.7%
<u>Education</u>			
Less than High School	77.7%	13.9%	8.4%
High School Graduate	78.5%	17.7%	1.5%
Some College	93.7%	3.1%	0.0%
College Graduate	76.9%	23.1%	0.0%
All Respondents	82.6%	14.9%	2.0%

Note: Percents may not sum to 100% because some respondents reported "don't know."

TABLE 27

FREQUENCY OF LIQUOR DRINKING BY RESPONDENTS
WHO REPORTED DRINKING LIQUOR IN THE PAST MONTH

Question:

And, during the past month, about how many days per week or per month did you have any liquor to drink, such as vodka, gin, rum or whiskey?

Demographic Characteristic	Times Per Week		Times Per Month	
	1 to 5	6 or More	1 to 5	6 or More
<u>Sex</u>				
Female	11.4%	2.2%	38.6%	1.7%
Male	13.1%	4.3%	31.5%	3.8%
<u>Age</u>				
18 to 34 Years	7.4%	0.0%	37.7%	1.6%
35 to 54 Years	17.9%	2.2%	34.3%	3.6%
Over 55 Years	13.2%	12.7%	28.2%	4.5%
<u>Household Income</u>				
Less than \$10,000	4.4%	2.2%	33.8%	3.6%
\$10,000 to \$20,000	13.7%	5.5%	34.9%	0.0%
\$20,000 to \$35,000	13.4%	1.7%	36.1%	3.8%
Over \$35,000	18.6%	3.7%	30.9%	6.9%
<u>Education</u>				
Less than High School	8.0%	5.0%	31.9%	0.0%
High School Graduate	13.2%	1.8%	38.0%	2.4%
Some College	8.2%	4.3%	33.1%	4.0%
College Graduate	17.5%	2.6%	33.9%	3.4%
All Respondents	12.3%	3.4%	34.6%	2.9%

Note: Percents may not sum to 100% because some respondents reported "don't know," "never/none," or refused.

TABLE 28

AVERAGE NUMBER OF GLASSES OF LIQUOR
DRANK EACH TIME

Question:

On the days when you drank any liquor, about how many drinks did you have on the average?

Demographic Characteristic	Number of Drinks		
	1 to 2	3 to 5	6 or More
<u>Sex</u>			
Female	65.9%	29.3%	4.1%
Male	58.8%	32.0%	8.2%
<u>Age</u>			
18 to 34 Years	60.5%	29.6%	8.9%
35 to 54 Years	54.4%	37.5%	6.7%
Over 55 Years	76.7%	21.6%	1.6%
<u>Household Income</u>			
Less than \$10,000	68.9%	27.9%	3.2%
\$10,000 to \$20,000	63.2%	30.4%	3.2%
\$20,000 to \$35,000	50.7%	36.5%	12.8%
Over \$35,000	73.2%	26.8%	0.0%
<u>Education</u>			
Less than High School	55.6%	44.4%	0.0%
High School Graduate	47.2%	43.0%	8.2%
Some College	62.9%	28.5%	8.6%
College Graduate	79.8%	15.0%	3.9%
All Respondents	62.0%	30.7%	6.4%

Note: Percents may not sum to 100% because some respondents reported "don't know."

4) College graduates drank liquor more frequently than the norm and those with less than a high school degree tended to drink liquor less frequently and drink less at one time than the other educational levels.

Tables 29 and 30 illustrate the number of times that respondents who indicated they drank an alcoholic beverage in the past month consumed more than five drinks on one occasion and the number of times that respondents drove after they had too much to drink. In general, men, younger people, and low income persons tended to drink more heavily and to drive "drunk" more often than their respective counterparts. Educational levels do not seem to be associated with heavy drinking (more than 5 drinks on one occasion).

Excessive use of alcohol is a problem that affects all members of society. In Montana, 69 percent reported that they had drunk an alcoholic beverage in the past month, with 21 percent indicating they had drunk more than five drinks on one occasion one to two times during the past month. Moderate alcohol consumption is believed to be beneficial; however, heavy alcohol use is harmful. To reduce the misuse of alcohol, individuals must be convinced that alcohol abuse is a serious health hazard so that they may take steps to control their alcohol intake and live a longer healthier life.

TABLE 29

NUMBER OF TIMES RESPONDENTS WHO DRANK
HAD MORE THAN 5 DRINKS ON ONE OCCASION

Question:

Considering all types of alcoholic beverages, that is beer, wine, and liquor, as drinks, how many times during the past month did you have 5 or more drinks on an occasion?

Demographic Characteristic	Number of Times		
	1 to 2	3 to 5	6 or More
Sex			
Female	14.5%	3.9%	1.8%
Male	26.6%	14.1%	11.4%
Age			
18 to 34 Years	29.1%	11.1%	8.1%
35 to 54 Years	17.1%	11.0%	5.5%
Over 55 Years	11.3%	3.9%	7.8%
Household Income			
Less than \$10,000	30.3%	11.6%	10.9%
\$10,000 to \$20,000	16.1%	8.6%	5.2%
\$20,000 to \$35,000	25.2%	11.2%	5.6%
Over \$35,000	16.8%	8.7%	6.8%
Education			
Less than High School	17.0%	5.0%	9.1%
High School Graduate	24.5%	10.9%	3.9%
Some College	21.7%	11.9%	8.9%
College Graduate	18.4%	7.1%	8.3%
All Respondents	21.2%	9.6%	7.1%

Note: Percents may not sum to 100% because some respondents reported "don't know," "never/none," or refused.

TABLE 30

NUMBER OF TIMES RESPONDENTS WHO DRANK
HAVE DRIVEN WITH TOO MUCH TO DRINK

Question:

And during the past month, how many times have you driven when you've had perhaps too much to drink?

Demographic Characteristic	Number of Times	
	1	2 to 5
Sex		
Female	2.6%	0.4%
Male	9.2%	8.2%
Age		
18 to 34 Years	9.5%	7.4%
35 to 54 Years	3.3%	3.6%
Over 55 Years	4.9%	1.5%
Household Income		
Less than \$10,000	11.6%	8.0%
\$10,000 to \$20,000	7.9%	2.1%
\$20,000 to \$35,000	5.0%	4.4%
Over \$35,000	1.9%	5.6%
Education		
Less than High School	0.0%	3.0%
High School Graduate	3.9%	5.5%
Some College	7.6%	4.6%
College Graduate	10.1%	4.5%
All Respondents	6.3%	4.7%

Note: Percents may not sum to 100% because some respondents reported "don't know," "never/none," or refused.

IV. RESULTS OF HIGHWAY TRAFFIC SAFETY SURVEY

A portion of the CDC risk behavioral survey contained questions submitted by the Montana Department of Justice, Highway Traffic Safety Division. The questions were concerned with drinking alcohol while driving in Montana. The following sections present the methods used to conduct the survey as well as the survey results. Because the questionnaire was administered to the same population as the behavioral risk survey, all demographic characteristics (e.g., age, sex, race) are the same as presented in Chapter III. Moreover, because all data was entered at the Montana Statistical Center at the same time and in the same manner as the CDC data, the reader should refer to Chapter II of this report for data analysis techniques.

A. Question Design

The Highway Traffic Safety Division in conjunction with ECO Northwest designed questions to be a part of the CDC survey. Pretesting the questions was accomplished in two stages: 1) those familiar with the survey reviewed the questions and provided suggestions for improvement, and 2) the questions were administered to a small segment of the general public. The questions were then modified accordingly.

The Highway Traffic Safety questions (Appendix C) were placed after the CDC alcohol-related questions and before the demographic questions. The supplement to this report contains the weighted (sex adjusted) cross-tabulations for sex, age, household income, and educational status.

B. Survey Results

The majority (98 percent) of Montanans agree that alcohol-impaired driving is a serious problem. Table 31 shows that females and college graduates more strongly perceive "drunk" driving as a major problem than their respective counterparts (i.e., males and lower educational groups). Age and income levels do not appear to be significantly associated with the perceived seriousness of the problem of alcohol-impaired driving.

Seventy percent thought they could avoid driving after they had too much to drink (Table 32), with more females than males believing they could avoid driving after drinking too much. Individuals over 55 years of age thought they would have a more difficult time avoiding the situation of driving after drinking and relatively more people in both higher income brackets and with lower educational levels indicated that they could not avoid driving after consuming too much alcohol (Table 32).

Oftentimes people, whether friends, associates, or passerbys, have the opportunity to, or at least know they should, stop "drunken" individuals from driving. Ninety-five percent of the survey participants either strongly agreed or agreed with the statement that they should take positive action to prevent people impaired by alcohol from driving. Table 33 shows that women more often than men thought they should prevent drunken people from driving. Age and income seemed to have no influence on the opinion that they should prevent drunken persons from driving a vehicle.

The majority of Montanans (94 percent) are supportive of strict law enforcement for driving while intoxicated (Table 34); however, only 56 percent consider law enforcement for drunk driving adequate in Montana (Table 35). Demographic characteristics (sex, age, income, education) do

TABLE 31

RESPONDENTS' AGREEMENT WITH
ALCOHOL-IMPAIRED DRIVING BEING
A SERIOUS PROBLEM

Statement:

Alcohol-impaired driving is a serious problem and something should be done about it.

<u>Demographic Characteristic</u>	<u>Strongly Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
<u>Sex</u>				
Female	66.4%	32.0%	1.4%	0.0%
Male	49.4%	49.0%	1.3%	0.0%
<u>Age</u>				
18 to 34 Years	57.0%	41.8%	0.7%	0.0%
35 to 54 Years	57.8%	40.5%	1.7%	0.0%
Over 55 Years	59.7%	37.5%	2.3%	0.0%
<u>Household Income</u>				
Less than \$10,000	53.9%	40.7%	3.5%	0.0%
\$10,000 to \$20,000	56.8%	42.4%	0.9%	0.0%
\$20,000 to \$35,000	60.7%	38.8%	0.5%	0.0%
Over \$35,000	62.0%	36.5%	1.5%	0.0%
<u>Education</u>				
Less than High School	50.9%	45.2%	2.9%	0.0%
High School Graduate	54.7%	44.3%	1.0%	0.0%
Some College	58.8%	38.7%	1.8%	0.0%
College Graduate	65.4%	34.0%	0.6%	0.0%
All Respondents	57.9%	40.4%	1.3%	0.0%

Note: Percents may not sum to 100% because some respondents reported "don't know," "don't drive," or refused.

TABLE 32

RESPONDENTS' AGREEMENT WITH WHETHER THEY
CAN AVOID DRIVING AFTER TOO MUCH TO DRINK

Statement:

After I have had too much to drink, I can avoid driving.

Demographic Characteristic	Strongly Agree	Agree	Disagree	Strongly Disagree
<u>Sex</u>				
Female	35.8%	29.5%	0.5%	0.3%
Male	25.1%	50.6%	5.9%	0.0%
<u>Age</u>				
18 to 34 Years	33.3%	45.1%	5.1%	0.0%
35 to 54 Years	32.7%	44.3%	2.3%	0.0%
Over 55 Years	23.7%	27.8%	1.5%	0.5%
<u>Household Income</u>				
Less than \$10,000	21.9%	28.5%	9.1%	0.8%
\$10,000 to \$20,000	27.3%	42.3%	2.4%	0.0%
\$20,000 to \$35,000	33.1%	44.9%	2.8%	0.0%
Over \$35,000	46.1%	38.5%	0.0%	0.0%
<u>Education</u>				
Less than High School	20.0%	34.1%	2.4%	1.0%
High School Graduate	25.4%	41.2%	3.7%	0.0%
Some College	30.9%	40.5%	4.1%	0.0%
College Graduate	44.0%	40.8%	1.6%	0.0%
All Respondents	30.5%	40.0%	3.2%	0.1%

Note: Percents may not sum to 100% because some respondents reported that they "don't drink," and/or "don't drive."

TABLE 33

RESPONDENTS' AGREEMENT WITH WHETHER THEY
SHOULD TAKE POSITIVE ACTION TO PREVENT DRUNKEN
PERSONS FROM DRIVING

Statement:

I should take positive action to prevent others from driving while they are impaired by alcohol.

Demographic Characteristic	Strongly Agree	Agree	Disagree	Strongly Disagree
<u>Sex</u>				
Female	52.9%	43.9%	3.0%	0.0%
Male	34.7%	57.7%	7.1%	0.4%
<u>Age</u>				
18 to 34 Years	44.6%	49.2%	5.3%	0.5%
35 to 54 Years	44.8%	51.0%	4.2%	0.0%
Over 55 Years	42.0%	52.2%	5.9%	0.0%
<u>Household Income</u>				
Less than \$10,000	43.3%	51.1%	5.6%	0.0%
\$10,000 to \$20,000	44.9%	47.6%	6.4%	0.7%
\$20,000 to \$35,000	44.4%	52.1%	3.5%	0.0%
Over \$35,000	45.1%	50.1%	4.9%	0.0%
<u>Education</u>				
Less than High School	37.1%	61.9%	1.0%	0.0%
High School Graduate	43.1%	52.0%	4.5%	0.0%
Some College	40.2%	51.6%	8.2%	0.0%
College Graduate	54.2%	40.8%	4.1%	0.9%
All Respondents	43.8%	50.8%	5.1%	0.2%

Note: Percents may not sum to 100% because some respondents reported that they "don't drink."

TABLE 34

PERCENT OF RESPONDENTS WHO SUPPORT
STRICT LAW ENFORCEMENT FOR DRUNKEN DRIVING

Question:

Do you support strict law enforcement for driving while intoxicated?

Demographic Characteristic	Percent
<u>Sex</u>	
Female	96.5%
Male	92.1%
<u>Age</u>	
18 to 34 Years	93.0%
35 to 54 Years	95.4%
Over 55 Years	94.7%
<u>Household Income</u>	
Less than \$10,000	93.7%
\$10,000 to \$20,000	95.2%
\$20,000 to \$35,000	95.8%
Over \$35,000	93.7%
<u>Education</u>	
Less than High School	91.7%
High School Graduate	95.1%
Some College	93.8%
College Graduate	95.3%
All Respondents	94.3%

TABLE 35

PERCENT OF RESPONDENTS WHO CONSIDER
LAW ENFORCEMENT ADEQUATE FOR DRUNK DRIVING

Question:

Do you consider law enforcement for drunk driving adequate in Montana?

Demographic Characteristic	Percent
<u>Sex</u>	
Female	51.7%
Male	60.5%
<u>Age</u>	
18 to 34 Years	53.3%
35 to 54 Years	62.0%
Over 55 Years	55.0%
<u>Household Income</u>	
Less than \$10,000	51.0%
\$10,000 to \$20,000	54.9%
\$20,000 to \$35,000	57.4%
Over \$35,000	65.3%
<u>Education</u>	
Less than High School	51.7%
High School Graduate	63.3%
Some College	55.7%
College Graduate	48.8%
All Respondents	56.4%

not seem to influence Montanans' opinion that there should be strict enforcement for drinking while under the influence of alcohol (Table 34). In contrast, when considering whether Montana law enforcement of drunken driving is adequate, more males than females thought enforcement was adequate, individuals reporting over \$35,000 in household income believed enforcement was sufficient more often than those in the lower income levels, and more high school graduates considered enforcement was adequate as compared to other educational groups (Table 35).

The respondents were asked what percent they thought was the level of alcohol concentration in the blood stream to be legally classified as driving while intoxicated. The answers provided by the survey respondents ranged from 0.1 percent to 60.0 percent (Table 36), with 16 percent answering correctly (.1 percent). More males (22.1 percent) than females (9.7 percent) answered correctly, individuals with a household income in excess of \$35,000 provided the correct answer more often than other income level groups, and people with less than a high school education were least likely among other educational groups to provide the correct response of .1 percent.

Three to four drinks per hour was the answer most frequently given as the number of drinks that respondents thought they needed to consume to reach the legal limit to be classified as driving while intoxicated (Table 37). Although the type of alcoholic beverage that respondents thought made them feel most intoxicated was whiskey (Table 38), one-third thought that all alcoholic beverages (beer, wine, and whiskey) have the same effect. It can be surmised from the data in Table 38 that:

- 1) More males (39.1 percent) than females (26.9 percent) consider all alcoholic beverages as producing the same intoxicating effect.

RESPONDENTS PERCEPTION OF LEGAL BLOOD
ALCOHOL PERCENT TO BE CLASSIFIED AS
DRIVING WHILE INTOXICATED

Question:

In Montana, what percent do you think is the legal blood alcohol content to be classified as driving while intoxicated?

Demographic Characteristic	.1%	.2% to .9%	1% to 5%	10% to 60%
<u>Sex</u>				
Female	9.7%	4.3%	5.1%	3.9%
Male	22.1%	4.5%	11.3%	7.2%
<u>Age</u>				
18 to 34 Years	17.4%	4.0%	11.6%	8.4%
35 to 54 Years	16.1%	7.6%	8.9%	3.4%
Over 55 Years	14.8%	1.1%	2.2%	4.4%
<u>Household Income</u>				
Less than \$10,000	14.8%	3.4%	9.8%	8.4%
\$10,000 to \$20,000	14.1%	4.7%	7.1%	4.7%
\$20,000 to \$35,000	18.7%	3.6%	7.6%	7.6%
Over \$35,000	23.0%	8.9%	13.1%	2.9%
<u>Education</u>				
Less than High School	3.2%	3.3%	5.2%	9.8%
High School Graduate	15.3%	5.0%	7.6%	2.1%
Some College	20.8%	4.8%	6.6%	6.9%
College Graduate	19.7%	3.7%	13.8%	7.6%
All Respondents	16.3%	4.5%	8.4%	5.7%

Note: Percents may not sum to 100% because some respondents reported "don't know."

TABLE 37

DRINKS PER HOUR TO REACH LIMIT TO BE
CLASSIFIED AS DRIVING WHILE INTOXICATED

Question:

How many drinks do you think you would have to consume in one hour to reach the legal limit to be classified as driving while intoxicated?

Demographic Characteristic	Number of Drinks		
	1 to 2	3 to 4	5 to 6
<u>Sex</u>			
Female	27.8%	26.2%	4.2%
Male	22.1%	36.4%	14.3%
<u>Age</u>			
18 to 34 Years	30.8%	36.0%	11.7%
35 to 54 Years	21.9%	34.3%	11.9%
Over 55 Years	18.0%	19.8%	3.3%
<u>Household Income</u>			
Less than \$10,000	21.5%	28.0%	7.9%
\$10,000 to \$20,000	20.2%	31.3%	10.0%
\$20,000 to \$35,000	30.3%	37.6%	6.3%
Over \$35,000	29.9%	31.3%	15.4%
<u>Education</u>			
Less than High School	14.2%	14.3%	9.7%
High School Graduate	21.8%	36.1%	9.3%
Some College	25.8%	32.6%	8.1%
College Graduate	34.2%	34.2%	12.2%
All Respondents	24.7%	31.7%	9.6%

Note: Percents may not sum to 100% because some respondents reported "don't know" or "don't drink."

TABLE 38

TYPE OF ALCOHOLIC BEVERAGE THAT MAKES
RESPONDENT FEEL MOST INTOXICATED

Question:

Which of the following do you feel will make you most intoxicated?

Demographic Characteristic	12 oz. Beer	5 oz. Wine	Shot of Whiskey	All Are the Same
<u>Sex</u>				
Female	3.0%	1.9%	19.6%	26.9%
Male	5.5%	2.5%	23.5%	39.1%
<u>Age</u>				
18 to 34 Years	4.9%	3.0%	30.4%	33.9%
35 to 54 Years	4.7%	2.1%	16.4%	41.6%
Over 55 Years	2.8%	1.3%	15.4%	21.2%
<u>Household Income</u>				
Less than \$10,000	6.7%	3.5%	23.9%	19.6%
\$10,000 to \$20,000	3.5%	4.0%	19.6%	29.4%
\$20,000 to \$35,000	4.4%	0.0%	21.1%	43.8%
Over \$35,000	1.5%	2.4%	23.3%	41.3%
<u>Education</u>				
Less than High School	5.5%	1.5%	13.8%	18.3%
High School Graduate	5.9%	2.1%	22.1%	31.4%
Some College	4.8%	1.1%	24.1%	33.7%
College Graduate	0.0%	4.3%	21.7%	43.3%
All Respondents	4.2%	2.2%	21.5%	33.0%

Note: Percents may not sum to 100% because some respondents reported
"don't know" or "don't drink."

2) More persons in the age group 35 to 54 years than other age groups think alcohol (beer, wine, whiskey) has the same effect.

3) As education and income increase, so does the perception that alcohol has the same intoxicating effect.

The U.S. Department of Health Education and Welfare (1979) estimated that one-half of all traffic deaths are alcohol related. As a result of this high occurrence, groups such as Mothers Against Drunk Drivers (MADD) have formed to lobby for stricter law enforcement for "drunk" driving. Montanans need to be made aware that alcohol-impaired driving is a risk not only to themselves but to all other persons on the road. Although laws have recently been passed (October 1983) that impose more harsh penalties for alcohol-impaired drivers, more still needs to be done to reduce this risk.

V. CONCLUSIONS

Research has shown that life-styles affect health. Although many individuals are aware that certain facets of their life-styles contribute to health deficiencies and premature death, these same individuals often do not take measures to modify their behaviors.

Americans repeatedly have been warned about risks associated with smoking cigarettes, excessive alcohol consumption, obesity, and so forth. Cigarette smoking, for example, may represent the largest single health problem for which something can be done. The United States government has closely regulated cigarette advertising on television and radio and warnings have been required on cigarette packages explaining the health risks associated with smoking. Numerous research projects have clearly identified the adverse health effects of smoking. In spite of these cautions to the public, 30 percent of Americans continue to smoke.

A general overview of Montana's behavioral risk factors is as follows.

- 1) Fifty percent seldom or never use seat belts.
- 2) Although 22 percent have been told by a doctor or nurse that they have high blood pressure, 60 percent reported that this condition is under control.
- 3) Nearly two-thirds of Montanans engage in some form of physical activity, with walking being the most common type of exercise reported.
- 4) Fifty-three percent add salt to their food at the table, and 37 percent eat red meat seven days a week.

5) Twenty percent are now on a diet to lose weight, with 61 percent reporting they had lost between one and ten pounds.

6) Twenty-nine percent of Montanans are current cigarette smokers; however, most (79 percent) smoke less than one pack a day.

7) Approximately one in three smokers have stopped smoking cigarettes for one week during the past year.

8) Sixty-nine percent indicated that they had drunk an alcoholic beverage (beer, wine, or liquor) during the past month.

9) The rate of acute heavy drinking (five or more drinks on one occasion) has remained stable at 26 percent since the 1982 survey.

10) Eleven percent of those who drink alcoholic beverages have driven "drunk" during the past month.

11) Ninety-eight percent of Montanans recognize alcohol-impaired driving as a serious problem and think something should be done to control it.

12) The majority (94 percent) support strict law enforcement for "drunk" driving.

13) Slightly over one-half of the population believe that enforcement for "alcohol-impaired" driving is adequate.

14) Few Montanans (16 percent) know the correct level of alcohol concentration in the blood stream to be legally classified as driving while intoxicated.

15) Seventy-one percent believed that they could avoid driving after drinking too much, while 95 percent thought they should prevent others from driving after too much to drink.

In addition, it was observed that there is a tendency of the low income and less educated groups to have higher than normal health risks.

For example, the poor and uneducated do not use seat belts as frequently as the rest of the population. They also tend to exercise less often, less vigorously, and are less likely to be on a diet. This group is typically shorter and weighs less, smokes more, drinks more, and drives "drunk" more often than the population norm. The same demographic group also tends to regard alcohol-impaired driving as less of a problem than the general public. In an overall sense, many high risk, health behavioral patterns seem to be concentrated among the poor and uneducated. The DHES may wish to target health promotion campaigns on this "high hazard" group.

Based on this survey, it does not appear that warning people of health risks associated with certain behaviors is sufficient. More effective and innovative techniques must be devised to convey the important message that longer and more satisfying lives can be achieved through modifying those behaviors which have been shown to lead to poor health, psychological malaise, and premature death.

Health professionals should play a significant role in informing people of behavioral risk factors; however, in the final analysis, it is the responsibility of the individual to choose whether they want to commit to a life-style which reduces risks. A conscious decision to ignore behavior which enhances health may be enigmatic to public health educators and presents a challenge that has historically eluded solutions.

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INFORMATION SOURCES

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APPENDIX A

BEHAVIORAL RISK FACTOR QUESTIONNAIRE

BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM
DATA COLLECTION INSTRUMENT

FIPS STATE CODE	STRATUM CODE	PSU NUMBER	RECORD NUMBER	DATE OF INTERVIEW MM DD YY	INTERVIEWER ID
<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>
(1-2)	(3)	(4-7)	(8)	(9-14)	(15-16)

HELLO. I'm (Interviewer Name) calling for the (Agency).
 We're doing a study of the health practices of (State Name) residents.

Your number has been chosen randomly by the (Agency)
 to be included in the study, and we would like to ask some questions
 about things people do which may affect their health.

1. Is this

Area Code
 (17-19)

Prefix
 (20-22)

Suffix
 (23-24)

YES -> GO TO QUESTION 2

NO -> Thank you very much, but I seem to have dialed the wrong
 number. It is possible that your number may be called at
 a later time. STOP

2. Is this a private residence? YES -> GO TO PAGE 2

NO -> Thank you very much, but we are only interviewing in
 private residences. STOP

FINAL DISPOSITION OF TELEPHONE CALL

(25-26)

- | | |
|---|---|
| 01- Completed Interview
02- Refused Interview
03- Non-working Number
04- No Answer (multiple tries)
05- Business Phone
06- No Eligible Respondent
at this number
07- No Eligible Respondent could
be reached during time period | 08- Language barrier prevented
completion of interview
09- Interview terminated within
questionnaire
10- Line busy (multiple tries)
11- Selected respondent unable to
respond because of physical or
mental impairment |
|---|---|

Edited by: _____ Date: _____

RESPONDENT SELECTION: (PLEASE READ)

Our study requires that we select just one adult from each household.

How many members of your household, including
yourself, are 18 years of age or older?..... (27)

I would like to speak to the adult member of your
household who has the next birthday.

NOTE: If selected respondent is not at home,
try to arrange for an appointment.

Name of selected respondent for callback.

Callback date: _____, time: _____

NOTE: If screening was NOT done with respondent,
introduce yourself and your agency.
CONFIRM that you are speaking with the person in the
household with the NEXT birthday-- and continue.
Otherwise just continue.

The interview will take about 10 minutes or perhaps a little less
and all the information obtained in this study will be confidential.

Your name will not be used, but your responses will be grouped
together with information from others participating in the study.

Of course, your part is voluntary and you can end the interview
anytime you like. First, I'd like to begin by asking you
about using seatbelts.....

SECTION A: SEATBELTS

1. How often do you use seatbelts when you drive or ride in a car?

Would you say	(PLEASE READ)	(28)
a. Always		1
b. Nearly Always		2
c. Sometimes		3
d. Seldom		4
e. Never		5
	Don't know/Not sure	7
	Never ride in a car	8
	Refused	9

SECTION B: HYPERTENSION

These next questions are about hypertension
or high blood pressure:

2. Have you ever been told by a doctor, nurse, or other health
professional that you have high blood pressure?

(PROBE FOR DOCTOR, NURSE OR OTHER HEALTH PROFESSIONAL)		(29)
a.	No, <u>GO TO SECTION C, PAGE 6</u>	1
b.	Yes, by a Doctor	2
c.	Yes, by a Nurse	3
d.	Yes, by other Health Professional....	4
	Do not remember/Not sure <u>GO TO</u> <u>SECTION C, PAGE 6</u>	7
	Refused, <u>GO TO SECTION C</u> <u>PAGE 6</u>	9

3. Have you been told on more than one occasion that your blood pressure was high, or have you been told this only once? (30)

- a. More than once 1
- b. Only once 2
- Do not remember/Not sure..... 7
- Refused 9

4. Is any medicine currently prescribed for your high blood pressure? (31)

- a. Yes 1
- b. No, GO TO Q6, PAGE 5..... 2
- Do not remember/Not sure
GO TO Q6, PAGE 5 7
- Refused, GO TO Q6, PAGE 5..... 9

5. Are you currently taking medicine for your high blood pressure? (32)

(Probe for "Most of the time" or "Only occasionally" if necessary. If answer is "Yes", use "Yes, most of the time")

- a. Yes, most of the time 1
- b. Yes, only occasionally 2
- or
- c. No 3
- Do not remember/Not sure ... 7
- Refused 9

6. Are you doing any of the following to help control your high blood pressure? Anything else?

(PLEASE READ. CIRCLE APPROPRIATE ANSWER FOR EACH ITEM)

(PLEASE NOTE: "d4" IS DO NOT SMOKE)

	<u>YES</u>	<u>NO</u>	<u>NOT SURE</u>	<u>REFUSED</u>	
a. Following a low salt diet.....	1	2	7	9	(33)
b. Watching your weight.....	1	2	7	9	(34)
c. Avoiding stress, relaxing	1	2	7	9	(35)
d. Cutting down or stopping smoking.....	1	2	7	4 9	(36)
e. Following an exercise program	1	2	7	9	(37)
f. Other, Specify _____	1	2	7	9	(38)

7. As far as you know, is your blood pressure presently normal or under control--or is it still high?

(PLEASE NOTE: NORMAL OR UNDER CONTROL INCLUDES "RETURNED TO NORMAL" AND "NO LONGER HAVE HIGH BLOOD PRESSURE") (39)

a. Normal.....	1
b. Under control.....	2
c. Still High	3
Don't know/Not sure.....	7
Refused	9

SECTION C: EXERCISE

The next few questions are about exercise and other recreational or physical activities.

8. During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, yardwork or walking? (40)

a. Yes, GO TO Q 10..... 1
b. No 2
Don't know/Not sure..... 7
Refused..... 9

9. Were there other activities or exercises that you participated in during the last month besides running, calisthenics, golf, yardwork or walking? (41)

a. Yes..... 1
b. No, GO TO SECTION D, PAGE 9..... 2
Don't know/Not sure, GO TO SECTION D, PAGE 9..... 7
Refused, GO TO SECTION D, PAGE 9..... 9

10. What type of physical activity or exercise did you spend the most time doing during the past month? (42-43)

a. Activity
SEE CODING LIST A Refused..... 99

Activity

ASK QUESTION 11 ONLY IF ANSWER TO Q10 IS RUNNING, WALKING, OR SWIMMING, ALL OTHERS, GO TO Q 12.

11. How far did you usually walk/run/swim? (44-46)

a. Miles and tenths
Dont't know/Not sure..... 777
Refused..... 999

(SEE CODING LIST B
IF RESPONSE IS NOT
IN MILES AND TENTHS)

12. How many times per week or per month did you take part in this activity during the past month?

(47-49)

- a. Times per week..... 1__
or
b. Times per month..... 2__
Don't know/Not sure..... 777
Refused 999

13. And when you took part in this activity, for how many minutes or hours did you usually keep at it?

(50-52)

- a. Hours & Minutes..... __: __
Don't know/Not sure 777
Refused..... 999

14. Was there another physical activity or exercise that you participated in during the last month?

(53)

- a. Yes..... 1
b. No, GO TO SECTION D, PAGE 9..... 2
Don't know/Not sure,
GO TO SECTION D, PAGE 9.... 7
Refused, GO TO SECTION D, PAGE 9.... 9

15. What other type of physical activity gave you the next most exercise during the past month?

(54-55)

- a. Activity..... __ __

SEE CODING LIST A

Don't know/Not sure, GO TO SECTION D,
PAGE 9..... 77

Activity

Refused, GO TO SECTION D, PAGE 9..... 99

ASK QUESTION 16 ONLY IF ANSWER TO Q15 IS RUNNING, WALKING, OR SWIMMING,
ALL OTHERS GO TO Q 17

16. How far did you usually walk/run/swim? (56-58)

(SEE CODING LIST B IF RESPONSE IS NOT IN MILES AND TENTHS)

a. Miles & tenths	___.__
Don't know/Not sure.....	777
Refused.....	999

17. How many times per week or per month did you take part in this activity? (59-61)

a. Times per week.....	1__
or	
b. Times per month.....	2__
Don't know/Not sure.....	777
Refused.....	999

18. And when you took part in this activity, for how many minutes or hours did you usually keep at it? (62-64)

a. Hours and Minutes.....	__:__
Don't know/Not sure.....	777
Refused.....	999

SECTION D: DIET

Next, I'd like to ask some questions about the food you eat.

19. How often do you usually add salt to your food at the table? (65)

Would you say

(PLEASE READ)

- a. Most of the time..... 1
- b. Sometimes..... 2
- c. Rarely..... 3
- Don't know/Not sure..... 7
- Refused..... 9

20. Including breakfast, lunch and dinner, how many days per week, if any, do you eat red meat such as beef, pork, hamburger or sausage but not including chicken or fish? (66-67)

- a. Times per week.....
- b. None or never..... 88
- Don't know/Not sure..... 77
- Refused..... 99

21. Are you now on a diet to lose weight? (68)

- a. Yes..... 1
- b. No, GO TO 23, PAGE 10..... 2
- Refused, GO TO 23, PAGE 10..... 9

22. How much weight, if any, have you lost since beginning your diet? (69-70)

- a. Pounds.....
Pounds
- Don't know/Not sure 77
- Refused 99

23. What is your current weight? (without shoes, with light indoor clothing on) (71-73)

a. Weight
Pounds

Don't know/Not sure..... 777

Refused 999

24. What is your height without shoes? (74-76)

a. Height.....
Ft. Inches

Don't know/Not sure..... 777

Refused..... 999

SECTION E: CIGARETTE SMOKING

Now, I would like to ask you a few questions about smoking cigarettes:

25. Have you smoked at least 100 cigarettes in your life? (77)
- (100 cigarettes
= 5 packs)
- a. Yes 1
- b. No, GO TO SECTION F, PAGE 12..... 2
- Don't know/Not sure..... 8
- Refused 9
26. Do you smoke cigarettes now? (78)
- a. Yes 1
- b. No, GO TO SECTION F, PAGE 12..... 2
- Refused, GO TO SECTION F, PAGE 12..... 9
27. On the average, about how many cigarettes a day do you
now smoke? (79-80)
- (1 Pack
= 20 cigarettes)
- a. Number of cigarettes — —
- b. Don't smoke regularly 88
- Refused 99
28. Have you stopped smoking for a week or more sometime during the
past year? (81)
- a. Yes 1
- b. No 2
- Refused 9

SECTION F: ALCOHOL CONSUMPTION

These next few questions are about the use of beer, wine, or liquor-
all kinds of alcoholic beverages that people drink at meals,
special occasions, or when just relaxing.

29. Have you had any beer, wine or liquor during the past month,
that is, since _____? (82)

- a. Yes 1
- b. No, GO TO SECTION G, PAGE 15..... 2
- Refused, GO TO SECTION G, PAGE 15..... 9

30. During the past month, how many times per week or per
month did you drink any beer? (83-85)

- a. Times per week 1 ____
or
- b. Times per month 2 ____
- c. Never or none GO TO Q 32, PAGE 13..... 888
- Don't know/Not sure, GO TO Q 32, PAGE 13..... 777
- Refused GO TO Q 32, PAGE 13..... 999

31. On the days when you drank beer, about how many beers did you
drink on the average? (86-87)

- a. Number of beers ____
- Don't know/Not sure..... 77
- Refused 99

32. Also, during the past month, how many times per week or per month did you drink any wine? (88-90)

- a. Times per week 1 ____
or
- b. Times per month 2 ____
- c. Never or none, GO TO Q34..... 888
- Don't know/Not sure, GO TO Q34..... 777
- Refused, GO TO Q 34..... 999

33. On the days when you drank wine, about how many glasses of wine did you drink on the average? (91-92)

- a. Number of glasses of wine ____
- Don't know/Not sure..... 77
- Refused 99

34. And, during the past month, about how many times per week or per month did you have any liquor to drink, such as vodka, gin, rum or whiskey? (93-95)

- a. Times per week 1 ____
or
- b. Times per month 2 ____
- c. Never or none, GO TO Q36, PAGE 14..... 888
- Don't know/Not sure, GO TO Q36, PAGE 14 777
- Refused, GO TO Q 36, PAGE 14..... 999

35. On the days when you drank any liquor, about how many drinks did you have on the average? (96-97)

- a. Number of drinks ____
- Don't know/Not sure..... 77
- Refused 99

36. Considering all types of alcoholic beverages, that is beer, wine, and liquor, as drinks, how many times during the past month did you have 5 or more drinks on an occasion? (98-99)

a. Number of times	__ __
b. None	88
Don't know/Not sure.....	77
Refused	99

37. And during the past month, how many times have you driven when you've had perhaps too much to drink? (100-101)

a. Number of times	__ __
b. None	88
Don't know/Not sure.....	77
Refused	99

SECTION G: DEMOGRAPHICS

And finally, these last few questions ask for a little more information about yourself.

38. How old were you on your last birthday? (102-103)

a. CODE AGE IN YEARS _ _

Do not remember/Not sure 08

Refused 09

IF AGE IS UNKNOWN OR REFUSED, ASK THE FOLLOWING

What is your date of birth? (104-109)

a. Date of Birth

MM		DD		YY	

b. Don't know/not sure 777777

Refused 999999

39. What is your race?

Would you say (110)

(PLEASE READ)

a. White 1

b. Black 2

c. Asian or Pacific Islander 3

d. Aleutian, Eskimo or American Indian..... 4

Do not know/Not sure 7

Refused 9

40. Are you of Hispanic origin such as Mexican American,
Latin American, Puerto Rican or Cuban? (111)

- a. Yes 1
- b. No 2
- Do not know/Not sure 7
- Refused 9

41. What is the highest grade or year of school you completed? (112)

(READ ONLY IF NECESSARY)

- a. Eighth Grade or Less 1
- b. Some High School 2
- c. High School Grad or GED Certificate 3
- d. Some Technical School 4
- e. Technical School Graduate 5
- f. Some College 6
- g. College Graduate 7
- h. Post Grad or Professional Degree 8
- Refused 9

42. Are you currently: (PLEASE READ) (113)

- a. Employed for wages 1
- b. Self employed..... 2
- c. Out of work for more than 1 year 3
- d. Out of work for less than 1 year 4
- e. Homemaker..... 5
- f. Student 6
- or
- g. Retired 7
- Refused 9

43. And are you: (PLEASE READ) (114)

- a. Married 1
- b. Divorced 2
- c. Widowed 3
- d. Separated 4
- e. Never been married 5
- or
- f. A member of an unmarried couple 6
- Refused 9

44. Which of the following categories best describes your annual household income from all sources? (115)

(PLEASE READ)

- a. Less than \$10,000..... 1
- b. \$10 to \$15,000..... 2
- c. \$15 to \$20,000..... 3
- e. \$20 to \$25,000..... 4
- e. \$25 to \$35,000..... 5
- or
- f. Over \$35,000..... 6
- Don't know/Not sure..... 7
- Refused..... 9

45. INTERVIEWER: INDICATE SEX OF RESPONDENT (116)

(ASK IF NECESSARY)

- a. Male 1
- b. Female 2

SECTION H: FINAL QUESTION AND CLOSING

46. Are there any other telephone numbers which can be used to reach this household?

- a. Yes, GO TO Q47
- b. No, CODE COLUMN 117, Q47 AS "1" AND READ CLOSING STATEMENT

47. How many telephone numbers will reach this household including the number I used today?

(DIFFERENTIATE BETWEEN TELEPHONE NUMBERS AND TELEPHONE SETS IF NECESSARY. INCLUDE ALL TELEPHONE NUMBERS THAT CAN REACH HOUSEHOLD) (117)

Total Telephone Numbers _____

CLOSING STATEMENT

This concludes this interview. Again, the information will be kept strictly confidential and will be used only for routine statistical research purposes. Thank you for your assistance. We greatly appreciate your time and cooperation.

APPENDIX B

TELEPHONE NUMBER REPLACEMENT PROCEDURES

Telephone Number Replacement Procedures

<u>Code</u>	<u>Rule</u>
01 - Completed interview	Do not replace
02 - Refused interview	Replace after second refusal or when you will not call a first-time refusal back.
03 - Non-working number	Usually recognized by a recording or fast, busy signal. Call business office or operator when in doubt. Replace when determined to be a non-working number.
04 - Ring, no answer	A normal telephone ring which no one answers after: 1) four attempts; and 2) the four attempts have a mixture of week day, week night and weekend. Replace when the rules are met.
05 - Business	The person answering identifies the telephone number as a business or says "no" when asked "Is this a residence?". Replace.
06 - No eligible respondent at this number	The household does not have anyone 18 years or older. (This does not mean the adults are away temporarily). Replace.
07 - No eligible respondent would be reached during interviewing period.	The selected respondent will not be available during the time you have allotted for interviewing. Replace.
08 - Language barrier	The selected respondent does not speak English well enough to be interviewed. Proxy interviewing is permissible with discretion. Otherwise replace.
09 - Terminated within questionnaire.	A "hang up" after the first question is asked. (This does not mean the respondent refused a particular question). Make another attempt to complete questionnaire. Replace when second attempt fails. A second attempt need not be made if the respondent completes interview through age, race and sex questions.

THE HISTORY OF THE UNITED STATES

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Code

10 - Line busy

11 - Select respondent unable to respond due to physical or mental impairment.

Rule

To be coded only after three attempts at 10 minute intervals. Follow same rules as for Code 4.

Example: Respondent is deaf. Follow same rules as for Code 8.

APPENDIX C

HIGHWAY TRAFFIC SAFETY QUESTIONS

HIGHWAY TRAFFIC SAFETY SURVEY

INTRODUCTION: As you may know, there is a great deal of concern about drinking while driving in Montana. I would like to ask you a few questions regarding this issue. I am going to read three statements that I would like you to tell me whether you

- 1) STRONGLY AGREE
- 2) AGREE
- 3) DISAGREE
- or 4) STRONGLY DISAGREE

Q-1 Alcohol-impaired driving is a serious problem and something should be done about it.

- 1) STRONGLY AGREE _____
 - 2) AGREE _____
 - 3) DISAGREE _____
 - 4) STRONGLY DISAGREE _____
- (118)

Q-2 After I have had too much to drink, I can avoid driving.

- 1) STRONGLY AGREE _____
 - 2) AGREE _____
 - 3) DISAGREE _____
 - 4) STRONGLY DISAGREE _____
 - 6) DON'T DRINK _____
 - 7) DON'T DRIVE _____
 - 8) DON'T DRINK _____
 - OR DRIVE _____
- (119)

Q-3 I should take positive action to prevent others from driving while they are impaired by alcohol.

- 1) STRONGLY AGREE _____
 - 2) AGREE _____
 - 3) DISAGREE _____
 - 4) STRONGLY DISAGREE _____
- (120)

Q-4 Do you support strict law enforcement for driving while intoxicated?

- 1) YES _____
 - 2) NO _____
 - 3) DON'T KNOW _____
- (121)

Q-5 Do you consider law enforcement for drunk driving adequate in Montana?

- 1) YES _____
 - 2) NO _____
 - 3) DON'T KNOW _____
- (122)

Q-6 In Montana, what percent do you think is the legal blood alcohol content to be classified as driving while intoxicated?

- 1) PERCENT OF ALCOHOL _____
 - 2) DON'T KNOW _____
- (123)

Q-7 How many drinks do you think you would have to consume in one hour to reach the legal limit to be classified as driving while intoxicated?

- 1) NUMBER OF DRINKS

2) DON'T KNOW
- _____

- 6) DON'T DRINK

(124)

Q-8 Which of the following do you feel will make you most intoxicated?

- 1) A 12 OZ. CAN OF BEER

2) A 5 OZ. GLASS OF WINE

3) 1 SHOT OF 80 PROOF WHISKEY

4) ALL HAVE THE SAME EFFECT

5) DON'T KNOW

6) DON'T DRINK
- _____

(125)

